

Why the Rabies Vaccine Should be Approved for Wolfdogs

Tag Words: wolfdog, dog mix, rabies, vaccination, wolf hybrid, wolf mix

Authors: Kimberly Davis, Lisa Shatynski and Julie M. Fagan, Ph.D.

Summary:

Wolfdogs cannot certifiably be vaccinated against rabies according to current legislation. This is partly because vaccine manufacturers and AVMA do not want to support ownership of wolfdogs since they are generally considered dangerous by the public. The USDA does not include wolfdogs in their definition of dogs and it is not required for wild animals to be vaccinated. Currently, owners must unofficially vaccinate their wolfdogs, putting the dogs at risk of euthanasia if they bite a human. Our solution is to write a letter to the AVMA and the vaccine manufacturers to convince them that approving the rabies vaccine is not necessarily supporting ownership of wolfdogs but is necessary for the safety of that animal and the public.

Video Link:

https://www.youtube.com/watch?v=hN6Oyv7pek&index=7&list=UUts4_1WYqXMmVDfu9ZfstA

Wolfdogs Need Rabies Vaccine

There is much controversy in the United States over the use of the rabies vaccine for wolfdogs. Use of the vaccine on wolfdogs is currently not approved by the United States Department of Agriculture (USDA). This is the case even though wolves and dogs are classified as the same species. Many letters have been sent to the USDA in an attempt to gain approval but to no avail. Organizations like the American Veterinary Medical Association (AVMA) and the Humane Society of the United States (HSUS) are against rabies vaccination approval because they believe it will support ownership of wolfdogs. Vaccine manufacturers are also against vaccine approval for wolfdogs. Their influence has played a huge part in the current problem. It is important for wolfdogs to have the vaccine and its certificate to protect the animal and the public from rabies and to protect the animal from being euthanized if it bites a human.

Rabies: Its Effects, The Vaccine and The Law

The rabies virus is a zoonotic disease that occurs most often in the wild and is occasionally transmitted to domestic animals. The virus is transmitted through the bite of an infected animal or through the saliva of an infected animal making contact with an open wound. Symptoms of rabies develop between two to eight weeks after the initial infection and fatality is almost guaranteed with the onset of symptoms (1). For humans, the virus begins to show symptoms within a ten day period (2). Rabies attacks the central nervous system and causes encephalitis, or acute inflammation of the brain, which ultimately leads to death if left untreated. For infected

dogs, the rabies virus tends to take on one of two symptomatic forms. In the first form, the dog tends to be extremely aggressive and may bite, even if unprovoked. In the second form, the dog may become unusually timid and have loss of coordination. As the disease progresses, the dog becomes hypersensitive to touch, sound and light. The dog's behavior becomes increasingly unusual, such as hiding in dark places. Foaming at the mouth occurs with paralysis of the throat and jaw (1). Unfortunately there is no direct test for rabies which can be done in a living animal. The only test available is direct fluorescent antibody test which requires brain tissue. Therefore, testing can only happen after the death of the animal.

It is important to vaccinate dogs against rabies because of its fatality rates. Dogs that are free to roam outside are at the highest risk for coming into contact with a rabid animal and being bit. If a dog gets into a fight with another stray dog, there is risk of rabies. Preventative measures should be taken to ensure the safety of the dog. Vaccinating against rabies can start as early as 3 months; however states regulate the age of first vaccination. In New Jersey dogs receive their first rabies shot at 6 months of age. There are two types of rabies vaccines. One is effective for one year before requiring a booster and the other is effective for 3 years before requiring a booster (3).

If a dog comes into contact with an animal suspected of having rabies, there are two ways to take action. If the dog has already been vaccinated, then a simple booster within 5 days of exposure is required and the dog must be monitored for 45 days for clinical signs. However, if the dog has not been vaccinated and it has been determined the animal was exposed to rabies according to N.C. law, "the local health director has the authority to require the owner to euthanize the animal or place the animal in up to a six month quarantine at a facility under reasonable conditions imposed by the local health director" (4). Clearly taking preventative measures to vaccinate against rabies has its benefits, especially in scenarios like the one just described. For an owner, proving that his or her dog was vaccinated is extremely important and could even save them from unnecessary euthanasia.

While the law varies by state, in general, if a person comes into contact with a dog (or any mammal) suspected of having rabies, the animal must be euthanized immediately and sent to the lab for testing. This can include being bit, scratched or exposed to the saliva of that animal. If the dog is not suspected of having rabies, it must be observed for a period of time, typically ten days and the Department of Health must be notified (5).

The rabies virus has been found in every part of the country, which can be very concerning because of the severity of its effect on those infected, most often causing death. However, the United States has done a wonderful job at controlling the spread of rabies throughout all parts of the country. This has been mainly through the use of the rabies vaccine. Legislature regarding the rabies vaccine is decided by state and further specified within counties and towns. In general, vaccination for rabies is required for ownership of an animal in the United States. AVMA has compiled a list of most state laws regarding rabies vaccination (6).

Specifically in New Jersey, in order to get a dog licensed, they must have received a rabies vaccine. If an animal's physical condition is such that a rabies vaccine would be harmful, a veterinarian can sign a certificate exempting that animal from having to receive the vaccine (7). This allows the animal to become fully licensed in the state of New Jersey. For example, if a dog

is seriously ill and in unstable health or the dog is healthy but severely allergic to the rabies vaccine, the veterinarian can sign a certificate of exemption. However, the certificate does expire after one year and the animal must be reexamined by a veterinarian to see if the animal's physical condition has improved to allow vaccination. This means that if a dog is in a full health condition, they must be vaccinated for rabies by a certified veterinarian. Most other states have a similar certificate of exemption for the rabies vaccine. It is illegal to own any dog in New Jersey that is not licensed and has not had a rabies vaccine.

The USDA is in charge of approving the rabies vaccine per species. According to Title 9 under the USDA code of Federal Regulations, each species must go through testing to prove the effectiveness of the vaccine. Currently, dogs, cats and ferrets are approved for the rabies vaccine. It is also recommended that livestock be vaccinated if they come into frequent contact with humans, such as in petting zoos (8). Field studies have tested the rabies vaccine on raccoons in order to prevent the virus from spreading in raccoon populations, so far the vaccine has been effective (9). Skunks were also being tested but the vaccine has not proven to be effective. The rabies vaccine is currently not approved for use on wolfdogs or wolves. However, some states are lenient on the use of rabies vaccine and allow for off label use on other animals besides those approved. The Rabies law in North Carolina states that, "It is generally recommended to follow label instructions; however, in most cases veterinarians may legally use the vaccines in a discretionary way if medically justified and in compliance with State/Federal restrictions that apply," (4).

What are wolfdogs?

A wolfdog, as its name suggests, is part wolf and part dog. Many people believe that they are hybrids, but this is not true. A hybrid is an animal whose parents are of two different species and the hybrid is usually sterile. Wolves and dogs are members of the same species, *Canis lupus*. Where they differ is in the subspecies, making them a crossbreed (10). Since wolfdogs are not true hybrids, wolves and dogs can interbreed and produce fertile offspring. This is an important distinction because it means wolfdogs can breed, producing offspring with varying percentage of wolf and dog.

Since wolfdogs can have varying percentage of wolf and dog, they are "classified" based on their content of wolf. A low content wolfdog, generally less than 50% wolf, will display only a few characteristics of a wolf. A mid content, generally 50-74% wolf, will display more wolf characteristics and less dog characteristics. A high content, 75-99% wolf, will have very few dog characteristics and be very similar to a pure wolf (11). There is currently a genetic test to determine if an animal is a dog, wolf, or hybrid; but it is only effective within three generations. Also, this test does not determine percentage of wolf content (12). Instead, phenotyping is used to approximate the wolf content in a hybrid.

Phenotyping is assessing an animal's traits (physical, behavioral, etc) and then comparing it to the traits of wolves and dogs. The more wolf-like traits a wolfdog has, the higher the content of wolf (effective wolfdog phenotyping). Some examples of wolf characteristics include a sloping forehead, black nose, short rounded furry ears, narrow chest, long legs with outward turned

wrists, large and long feet/toes, etc. By determining how many traits a wolfdog has in common with wolves, it is possible to estimate wolf content. Behavior and temperament can also help to determine wolf content.

Wolfdog behavior can vary greatly, just like dog behavior varies even within a breed. In general, wolves tend to be shy, fearful, and extremely intelligent. Many people get a wolfdog thinking that it will be a good guard dog. However, wolves generally are not protective due to their fearfulness. High content wolfdogs tend to share these characteristics. Mid and low content wolfdogs tend to be more social, less fearful, and may be protective (depending on the breed of dog they are mixed with). Due to their intelligence, wolfdogs can be hard to contain and require a tall, sturdy fence to keep them in. They require physical as well as mental stimulation and do best with a canine companion. It is important to have a fenced in yard to allow them to run and explore. When alone, they prefer to be outdoors and if left inside, some may become destructive. Contrary to popular belief, wolves are not inherently aggressive or dangerous. Their behavior towards humans, like dogs, depends a great deal of proper handling and training starting at a young age (13).

When deciding to own a wolfdog, it is important to take their characteristics into consideration. As with any animal, an owner should research proper care of a wolfdog and must remain committed to caring for the wolfdog throughout its lifetime. When in an appropriate environment, wolfdogs make great companions. However, many people adopt a wolfdog puppy not knowing what they will need as adults. This leads to many wolfdogs being abandoned or taken to a shelter once they mature (14). This happens with other breeds of dogs as well, but it is particularly devastating with wolfdogs. Since they have a reputation of being dangerous and since they cannot legally be considered rabies vaccinated, many times they are euthanized. It is also important to become familiar with the laws at the state, and local level where the wolfdog will live, as different areas have different rules and regulations for the ownership of wolfdogs. At the federal level, according to the USDA, "Crosses between wild animal species and domestic animals, such as dogs and wolves or buffalo and domestic cattle, are considered to be domestic animals" (15). This leaves the regulation of wolfdogs to the state and local agencies which cover domestic animals.

In some states, such as Alaska, Georgia, and Hawaii, it is illegal to own a wolf dog (16). Alaska's law says that it is illegal to own a game animal (which includes wolves and hybrids) without a possession permit, and they will not issue a possession permit for a game animal to be used as a pet (15, 16). Other states have varying regulations on their ownership. Take Alabama for example. In Alabama, it is legal to own a wolfdog if it is vaccinated for rabies. Alabama recognizes the new definition of dog as including all members of the species *Canis lupus*, which includes wolves and dogs. However, since the USDA does not include wolves in their definition there is no vaccine approved in wolves or wolfdogs. This means wolfdogs are vaccinated off label and the state still may "require their euthanasia on a case-by-case basis" in the case of a bite (17). Arkansas has stricter rules regarding wolfdog ownership. The state requires a health certificate and proof of a rabies vaccination for all hybrids and has strict requirements regarding the type of enclosure needed. However, since the vaccination is not approved for wolfdogs, they do not fall under the same regulations if a bite should occur (17). And a few states do not regulate ownership at all on a state level, such as New Jersey and Colorado, which considers

them a domestic animal (16). However, Colorado does require that the animal be euthanized or quarantined for 30 days at an approved facility if a bite should occur (18).

Within each state, counties and towns can further regulate wolf dog ownership. Due to this, it is important for an owner to research the laws and regulations in their state as well as their county/town. This will help prevent wolfdogs from being taken to a shelter and the owner from being fined or prosecuted.

One reason it is illegal to own wolfdogs in certain areas and their ownership is limited/ regulated in most other areas is due to the lack of an approved rabies vaccination. By having a rabies vaccination approved for use in wolfdogs, they would be given the same treatment as dogs if they were to bite a human or animal. This would prevent unnecessary euthanasia of these animals.

Why Testing is Not the Solution

The main issue is that the USDA has not approved the rabies vaccine for use in wolfdogs. However, wolves and dogs are the same species which means wolfdogs are not hybrids, or a cross between two different species. According to the most recent edition of the Smithsonian's *Mammal Species of the World*, dogs and wolves are classified under the same genus and species *Canis lupus*. There are over forty subspecies of wolves. Specifically, dogs are classified under the subspecies *Canis lupus familiaris* and wolfdogs are included (19). If the rabies vaccine is approved according to species, then the vaccine should be effective in wolves and wolfdogs just as it is effective in dogs. However the USDA still claims that testing must be conducted on wolfdogs and wolves in order to approve its use. The USDA still calls wolfdogs hybrids even though they follow the *Mammal Species of the World* classification for all other species.

Testing on wolfdog mixes for the rabies vaccine has not yet been conducted due to high expenses (14). While the USDA ultimately approves the rabies vaccine, vaccine manufacturers are allowed to conduct their own testing to prove the effectiveness of the vaccine. Advocates for testing on wolfdogs argue that the reliability of the vaccine in wolfdogs is not proven. Furthermore, the length of time between exposure to the virus and onset of symptoms has not been tested in wolfdogs and is unknown (20). If a wolfdog is exposed to rabies, it is likely to be euthanized as opposed to being quarantined for ten days. Testing would require the involvement of a large number of wolves and wolfdogs. Some animals would have to be given the rabies virus with no treatment in order to provide scientific proof of how long the incubation time is for these animals. Another group would have to be given the rabies vaccine and not be exposed to the virus while the last group, and most important, would have to be given the vaccine and exposed to the rabies virus. These animals, after a set period of time would have to be euthanized and their brain tissue tested for the presence of the virus. As one can see, research in this area is quite extensive and would require sacrificing both wolves and wolfdogs. Most breeders and owners of wolfdogs are passionate about their animals and would not be willing to participate in such costly research.

Concerning the effectiveness of the rabies vaccine on the wolfdog, one might consider the effectiveness of rabies on the German Shepherd or other wolf-like dogs. There are several species of dogs including German Shepherds, Alaskan Malamutes and Huskies, whose breed originated from wolf dog crossing. These breeds are considered domestic and the rabies vaccine is approved for them. It should be noted that the rabies vaccine was tested and proven effective on Beagles. Although dogs vary greatly in shape, size, temperament and overall physiological make up, the rabies vaccines, once tested on Beagles, was approved for all breeds. There is no reason for wolfdogs to be excluded from this group.

Legal Issues

While secretly administering the rabies vaccine to wolfdogs does not seem like a big deal, it becomes a huge legal issue when circumstances, such as dog bites, occur. One example is a case involving a shepherd/husky/blue-tickhound mix named Tucker. He was owned by James Moreland who used to brag to his friends that Tucker was part wolf. One day, after Tucker had received a bath and was “not in a good mood”, the neighbor’s ten year old son attempted to pet Tucker who lashed out and bit the child. Tucker was quarantined for ten days, showed no signs of the rabies virus and appeared healthy. However, the Health Department official, believing Tucker to be a hybrid, stated that, “Hybrids do not necessarily show signs within this quarantine time and must be euthanized and tested, according to state law,” (21). The official also stated that the rabies vaccine is not proven to prevent rabies in hybrids, therefore even if the animal has been vaccinated, testing must still be conducted. The case concluded in 1994 when Judge Millete Leroy Jr. ruled that Tucker must be euthanized and sent for testing. As Moreland had expected, the results of the test came back negative for rabies. Tucker died in vain. There was no reason for Tucker to have contracted rabies but, because witnesses claimed him to be a wolfdog mix, the law required him to be put to death to ensure he did not have rabies.

Current Solutions

Unfortunately, there are currently no good solutions to this problem. There is no substitute for having a rabies vaccine labeled for use in wolfdogs. However, people do what they can to protect themselves, their animals, and the general public. Since the rabies vaccine has never caused any side effects or issues in wolfdogs and it has been used for years in wolfdogs and wolves, it is widely accepted to be effective. This means owners get their wolfdogs vaccinated despite not having a vaccination labeled for them (22).

Lie About the Breed

Some owners choose to lie about the genetic make-up of their animal. By claiming that the animal is a mix of dog breeds and not a wolfdog, the animal will be legally vaccinated on-label, according to the veterinarian who is not aware of the dog’s true lineage. This allows the wolfdog to be vaccinated, which, just like in dogs, provides protection to the animal and to a human who may be bit (23). This also protects the wolfdog from being treated as if it were unvaccinated should it bite a human or animal, which could save it from being euthanized. By having a vaccination labeled for use in wolfdogs, owners would not face the decision of whether or not to lie about their pets breed. This would allow people to be honest and allow the public to see that

these wolfdogs (which they would have previously been told were dogs) can make great companions in the right environment.

Vaccinate Off-label

If an owner chooses to be honest and tell the veterinarian that their pet is a wolfdog, the animal can still be vaccinated for rabies, but is done so off label. This means that legally the wolfdog is considered unvaccinated and will be treated as such should it bite a human or animal. This is an ethical issue, not a scientific one. The vaccine is labeled by species, and therefore should be considered safe and effective in wolfdogs. By approving it, the wolfdogs would not face the possibility of euthanasia if they bit someone.

Letters Written to USDA

Many people have come together to write letters to the USDA asking for approval of the vaccine in wolfdogs. Because of this, a petition to change the definition of dog to include wolves was enacted in 1999. This became a proposed rule, but was not passed despite the fact that the Animal and Plant Health Inspection Stations (APHIS) under the USDA believes that “dogs, wolves, and any dog-wolf cross can be safely and effectively vaccinated with canine vaccines” (22). Part of the reason it didn’t pass is due to feedback from AVMA and vaccine manufacturers who do not want the vaccine approved.

Community Action: Contacting AVMA and Rabies Vaccine Manufacturers

A letter was written to the AVMA and to different vaccine manufacturers to make them aware of the safety issue posed to wolfdogs and the general public by not having an approved vaccine. In the letter, the extent of the use of rabies vaccines in wolfdogs and the lack of any side effects or issues was explained. Since dogs are now classified as a subspecies of wolf, and the vaccinations are labeled by species; the vaccination would be considered effective by simply changing the definition of dog used by the USDA to that in the mammalian standard (22, 24). No further testing would need to be done, meaning there would be virtually no cost to vaccine manufacturers (25). It is our hope that by contacting the AVMA and vaccine manufacturers about this issue, they will decide, like APHIS has already done, that it is in the best interest of wolfdogs and the general public to approve the vaccine. We also submitted a version of this letter for publication in the magazine “The Bark”.

The letter below was sent to the following addresses:

Pfizer Animal Health (Headquarters)
1-888-963-8471
Pfizer Inc
100 Campus Drive
Florham Park, NJ 07932

Merck Animal Health (NOBIVAC® 3-RABIES vaccine)
1- 800-521-5767

2 Giralba Farm
Madison NJ 07940
To Rick Deluca

Merial (IMRAB vaccine)
1-888-637-4251
3239 Satellite Boulevard
Duluth GA 30096

AVMA
1-800-248-2862
1931 North Meacham Road, Suite 100
Schaumburg, IL 60173

Letter to AVMA/ vaccine manufacturers

Dear AVMA/vaccine manufacturers,

It has come to our attention that there is no approved rabies vaccination for wolfdog mixes. This is concerning due to safety issues posed to the wolfdog and the general public. The lack of an approved rabies vaccine for wolfdogs makes their owners less likely to get them vaccinated for rabies as it would be considered “off-label”. Though there is no evidence that the vaccine is unsafe for wolfdogs. Secondly, some veterinarians will not vaccinate wolfdogs off label making it hard for owners in some areas to get their wolfdog vaccinated. Having unvaccinated companion animals poses a health risk to the general public. If these unvaccinated animals were to come into contact with a rabid animal, they could contract the disease and potentially infect many people.

Currently, with the rabies vaccine not approved for wolfdogs, the health department can mandate immediate euthanasia of the animal for rabies testing, should a wolfdog be suspected of coming into contact with a rabid animal. This is the case even if the wolfdog was current on (and protected by) the rabies vaccine.

By approving the vaccine in wolfdogs, the number of wolfdogs who are vaccinated will increase; protecting wolfdogs and the public. Many opponents do not want the vaccine to be approved in wolfdogs because they feel it will promote ownership of these animals. However, this is not the case. If an individual decides they want to own a wolfdog, they will do so even though there is no approved vaccine. What approving the vaccine will do is increase the compliance rate of rabies vaccination in wolfdogs and thus decreases the potential rabies risk to them and the general population. It will also save wolfdogs who are current on the rabies vaccine from being euthanized should a bite occur.

The process for approving the rabies vaccine can be very simple. The USDA’s definition of dog currently does not include wolves or wolfdogs. This can be changed by rewriting the definition of dog to apply to all animals in the species *Canis lupus*, which domestic dogs and wolves are

both a part of. Technically speaking, there is no reason why wolves and wolfdogs should not be included in this definition, as vaccines are labeled by species. There is a discrepancy because until 1993 wolves and dogs were classified as different species. In this same year, dogs were reclassified as a subspecies of wolf in the Smithsonian's *Mammal Species of the World*, which is the standard for mammalian taxonomy. Since wolves and dogs are the same species, there is no need to perform expensive testing before approving the vaccine. The vaccination has already been used extensively in wolves and wolfdogs, in which it has demonstrated to be both safe and effective. What we ask is that you stand behind these animals in an effort to change the USDA's definition of dog to include all members of the species *Canis lupus*.

We believe that the above is primarily a political/ethical issue, not a scientific one. Given that you aim to promote the health, safety and welfare of animals (and the public), it would be in the public's and your best interest to change the labeling on the rabies vaccine to include all members of the species *Canis lupus*.

We hope that you take action to make this change.

Sincerely,

Kimberly Davis
Lisa Shatynski
Julie M. Fagan, Ph.D.
School of Environmental and Biological Science
Rutgers, The State University of New Jersey

Letter sent to:

1. Pfizer Animal Health
2. Merck Animal Health
3. Merial
4. The American Veterinary Medical Association

Petition for Approval

In order to create a greater amount of pressure on the vaccine manufacturers and AVMA, a letter was also sent to several wolf rescue groups dispersed throughout the United States. The goal of the letter was to ask the rescues to create a petition for the approval of the rabies vaccine for wolfdogs and then send the petitions to AVMA and the vaccine manufacturers.

Wolf Rescues:

Wolf Sanctuary of PA
465 Speedwell Forge Rd.
Lititz, PA 17543
717-626-4617

<http://wolfsanctuarypa.org/>
E-mail; wolfsanctuary@gmail.com

W.O.L.F Sanctuary
P.O, Box 1544
La Porte, CO
970-416-9531

<http://www.wolfsanctuary.net/contacts.html>

Shelley Coldiron, Executive Director scoldiron@wolfsanctuary.net

Wild Spirit Wolf Sanctuary
HC 61 Box 28
378 Candy Kitchen Rd.
Ramah, NM 87321
505-775-3304

<http://wildspiritwolfsanctuary.org/>

Lakota Wolf Preserve
89 Mt Pleasant Rd
Columbia, NJ 07832
877-733-9653

<http://www.lakotawolf.com/>

Jim Stein (Owner) jim@lakotawolf.com

Lake Tahoe Wolf Rescue
774 Mays Blvd. Ste. #10 PMB 359
Incline Village, NV 89451
775-833-2066

<http://www.laketahoewolfrescue.com/>

Dear Wolf Rescue,

Below you will find a letter sent to the American Veterinary Medical Association (AVMA) and vaccine manufactures. This letter was intended to convince this organization and these businesses that the rabies vaccine should be approved for wolfdogs. Within the letter you will find a list of reasons as to why this is so important and it is our hope that you agree. Furthermore, we ask that you create a petition within your local area requesting the approval of the rabies vaccine for wolves and wolfdogs in the United States. We then ask that you send the petition to AVMA and the vaccine manufactures.

This controversy over the rabies vaccine has been longstanding. Letters have been sent before to the USDA but to no avail. AVMA and the vaccine manufacturers have had a huge influence on the actions of the USDA. However, if they realize the great need for the rabies vaccine within the wolf/ wolfdog community, there is a possibility they will agree to have the rabies vaccine approved. It is also possible for the vaccine manufacturers to deem their product safe and effective for a particular species or in this case, subspecies. Even if the USDA does not approve

the rabies vaccine overall, having approval for the rabies vaccine by one manufacturer can make all the difference. Please take the time to read the following letter and consider starting a petition to help create a safer environment for wolves, wolfdogs and the public.

Dear AVMA/vaccine manufacturers,

It has come to our attention that there is no approved rabies vaccination for wolfdog mixes. This is concerning due to safety issues posed to the wolfdog and the general public. The lack of an approved rabies vaccine for wolfdogs makes their owners less likely to get them vaccinated for rabies as it would be considered “off-label”. Though there is no evidence that the vaccine is unsafe for wolfdogs. Secondly, some veterinarians will not vaccinate wolfdogs off label making it hard for owners in some areas to get their wolfdog vaccinated. Having unvaccinated companion animals poses a health risk to the general public. If these unvaccinated animals were to come into contact with a rabid animal, they could contract the disease and potentially infect many people.

Currently, with the rabies vaccine not approved for wolfdogs, the health department can mandate immediate euthanasia of the animal for rabies testing, should a wolfdog be suspected of coming into contact with a rabid animal. This is the case even if the wolfdog was current on (and protected by) the rabies vaccine.

By approving the vaccine in wolfdogs, the number of wolfdogs who are vaccinated will increase; protecting wolfdogs and the public. Many opponents do not want the vaccine to be approved in wolfdogs because they feel it will promote ownership of these animals. However, this is not the case. If an individual decides they want to own a wolfdog, they will do so even though there is no approved vaccine. What approving the vaccine will do is increase the compliance rate of rabies vaccination in wolfdogs and thus decreases the potential rabies risk to them and the general population. It will also save wolfdogs who are current on the rabies vaccine from being euthanized should a bite occur.

The process for approving the rabies vaccine can be very simple. The USDA’s definition of dog currently does not include wolves or wolfdogs. This can be changed by rewriting the definition of dog to apply to all animals in the species *Canis lupus*, which domestic dogs and wolves are both a part of. Technically speaking, there is no reason why wolves and wolfdogs should not be included in this definition as vaccines are labeled by species. There is a discrepancy because, until 1993, wolves and dogs were classified as different species. In this same year, dogs were reclassified as a subspecies of wolf in the Smithsonian’s *Mammal Species of the World*, which is the standard for mammalian taxonomy. Since wolves and dogs are the same species, there is no need to perform expensive testing before approving the vaccine. The vaccination has already been used extensively in wolves and wolfdogs, in which it has demonstrated to be both safe and effective. What we ask is that you stand behind these animals in an effort to change the USDA’s definition of dog to include all members of the species *Canis lupus*.

We believe that the above is primarily a political/ethical issue, not a scientific one. Given that you aim to promote the health, safety and welfare of animals (and the public), it would be in the public's and your best interest to change the labeling on the rabies vaccine to include all members of the species *Canis lupus*.

We hope that you take action to make this change.

Sincerely,

Kimberly Davis
Lisa Shatynski
Julie M. Fagan, Ph.D.

Thank you for your dedication and hard work in rescuing and preserving wolves and wolfdog mixes. Having read the letter above, we hope that you recognize the need for greater action to be taken for the sake of wolves, wolfdogs and the community.

Sincerely,

Kimberly Davis
Lisa Shatynski
Julie M. Fagan, Ph.D.

Letter sent to:

1. Wolf Sanctuary of PA
2. W.O.L.F Sanctuary
3. Wild Spirit Wolf Sanctuary
4. Lakota Wolf Preserve
5. Lake Tahoe Wolf Rescue

The cover letter with the letter below was submitted for publication in the magazine "The Bark" on Feb. 20, 2015.

Dear Editor of "The Bark":

I would like for you to consider publishing the attached 600 word article entitled "Why the Rabies Vaccine Should be Approved for Wolfdogs" preferably as a "short piece" in your printed magazine, or as a "web only" article.

At Rutgers University, we have a very strong Animal Sciences undergraduate program. Approximately 500 students are enrolled in the program and we have very active clubs (Seeing Eye Puppy Raising, Companion Animal, Vet Club, Animal Science club and an animal rescue non profit). Today, I requested a subscription to "The Bark" to be enjoyed by all of our students.

It would be great if they got to see an article coming out of Rutgers University in your magazine.

So - see the attached and let me know if this is something you'd be interested in publishing. Feel free to contact me.

Julie M Fagan, Ph.D.
Associate Professor
Department of Animal Sciences
Rutgers University
84 Lipman Dr.
New Brunswick, NJ 08903

<http://animalsciences.rutgers.edu/faculty/fagan/index.html>

Why the Rabies Vaccine Should be Approved for Wolfdogs

Kimberly Davis*, Lisa Shatynski* and Julie M. Fagan, Ph.D.**

Currently, there is no approved rabies vaccination for wolfdog mixes. This is concerning due to safety issues posed to the wolfdog and the general public. The lack of an approved rabies vaccine for wolfdogs makes their owners less likely to get them vaccinated for rabies as it would be considered “off-label”. There is no evidence that the vaccine is unsafe for wolfdogs. Some veterinarians will not vaccinate wolfdogs off label making it hard for owners in some areas to get their wolfdog vaccinated. Having unvaccinated companion animals poses a health risk to the general public. If these unvaccinated animals were to come into contact with a rabid animal, they could contract the disease and potentially infect many people.

With the rabies vaccine not approved for wolfdogs, the health department can mandate immediate euthanasia of the animal for rabies testing, should a wolfdog be suspected of coming into contact with a rabid animal (even if the wolfdog was current on and protected by the rabies vaccine).

Approving the vaccine in wolfdogs will increase the number of wolfdogs who are vaccinated; protecting wolfdogs and the public. Opponents and some influential organizations like the American Veterinary Medical Association (AVMA) and the Humane Society of the United States (HSUS), do not want the vaccine to be approved in wolfdogs because they feel it will promote ownership of these animals. However, this is not the case. If an individual decides they want to own a wolfdog, they will do so even though there is no approved vaccine. What approving the vaccine will do is increase the compliance rate of rabies vaccination in wolfdogs and thus decreases the potential rabies risk to them and the general public. It will also save wolfdogs who are current on the rabies vaccine from being euthanized should a bite occur.

The process for approving the rabies vaccine can be very simple. The USDA’s definition of dog currently does not include wolves or wolfdogs. This can be changed by rewriting the definition of dog to apply to all animals in the species *Canis lupus*, which domestic dogs and wolves are both a part of. Technically speaking, there is no reason why wolves and wolfdogs should not be

included in this definition, as vaccines are labeled by species. There is a discrepancy because until 1993 wolves and dogs were classified as different species. In this same year, dogs were reclassified as a subspecies of wolf in the Smithsonian's *Mammal Species of the World*, which is the standard for mammalian taxonomy. Since wolves and dogs are the same species, there is no need to perform expensive testing before approving the vaccine. The vaccination has already been used extensively in wolves and wolfdogs, in which it has demonstrated to be both safe and effective.

We believe that the above is primarily a political/ethical issue, not a scientific one. Given that we all aim to promote the health, safety and welfare of animals (and the public), it would be in the public's best interest to change the labeling on the rabies vaccine to include all members of the species *Canis lupus*. In an effort to change the labeling, USDA's definition of dog should include all members of the species *Canis lupus*, giving the vaccine manufacturers reason to approve the use of the rabies vaccine for wolfdogs,

** Julie Fagan is an Associate Professor of Animal Sciences, Rutgers University, New Brunswick, NJ 08903.

*Kimberly Davis and Lisa Shatynski are currently students at Rutgers University, New Brunswick, NJ 08903.

References

1. WebMD Veterinary Reference from the ASPCA, (2014). Rabies in Dogs. Retrieved from website: <http://pets.webmd.com/dogs/rabies-dogs>
2. Centers for Disease Control and Prevention, (2012). What are the signs and symptoms of rabies? Retrieved from website: <http://www.cdc.gov/rabies/symptoms/index.html>
3. WebMD Veterinary Reference Reviewed by Amy Flowers, DVM, (2013). Pet Vaccines: Schedules for Cats and Dogs. Retrieved from website: <http://pets.webmd.com/pet-vaccines-schedules-cats-dogs>
4. N.C. Rabies Control Manual, (2013). Animal Rabies Vaccination: Requirements & Guidelines. Retrieved from website: http://epi.publichealth.nc.gov/cd/lhds/manuals/rabies/docs/animal_vax.pdf
5. Pennsylvania Department of Agriculture, (2014). Rabies Facts. Retrieved from website: http://www.agriculture.state.pa.us/portal/server.pt/gateway/PTARGS_0_2_24476_10297_0_43/AgWebsite/ProgramDetail.aspx?name=Rabies-Facts&navid=12&parentnavid=0&palid=129
6. Staff research, AVMA State Legislative and Regulatory Department, (2014). Administration of Rabies Vaccination State Laws. Retrieved from website: <https://www.avma.org/Advocacy/StateAndLocal/Pages/rabies-vaccination.aspx>
7. New Jersey Department of Health, (2012). Certificate of Exemption sheet. Retrieved from website: www.state.nj.us/health/forms/vir-16.dot
8. Centers for Disease Control and Prevention, (2011). Rabies Vaccination. Retrieved from website: http://www.cdc.gov/rabies/specific_groups/veterinarians/vaccination.html
9. USDA Wildlife Services, (2010). Preventing the spread of Raccoon Rabies. Retrieved from website: http://www.aphis.usda.gov/publications/wildlife_damage/2013/RaccoonRabiesPA1933.pdf

10. Merriam-webster, (2014). Hybrid. Retrieved from website: <http://www.merriam-webster.com/dictionary/hybrid?show=0&t=1402607220>
11. Dog Breed Info Center, (2014). Wolfdog. Retrieved from website: <http://www.dogbreedinfo.com/w/wolfdog.htm>
12. UC Davis Veterinary Medicine, Veterinary Genetics Lab, (2013). Wolf-Dog Hybrid Test. Retrieved from website: <https://www.vgl.ucdavis.edu/services/Wolf-DogHybrid.php>
13. Vickers, Richard. Dark Forest LLC, (2003). Effective Wolfdog Phenotyping. Retrieved from website: http://www.google.com/url?sa=t&rct=j&q=&esrc=s&source=web&cd=1&cad=rja&uact=8&ved=0CB4QFjAA&url=http%3A%2F%2Fwww.thedarkforestgroup.com%2Ffiles%2FEffective_Wolfdog_Phenotyping_w97watermarked.pdf&ei=32YtVL2WGYuwyASkvYlQCg&usg=AFQjCNEC_eJuCyA5MjPmLjcmDtbYgxF-LQ&sig2=2Qsij6g_hljV40_38O1zQ&bvm=bv.76477589,d.aWw
14. Willems, Robert A. DVM, USDA-APHIS, (1995). The wolf-Dog Hybrid. Retrieved from website: <http://www.nal.usda.gov/awic/newsletters/v5n4/5n4wille.htm#toc6>
15. USDA, (2013). Animal Welfare Act and Animal Welfare Regulations. Retrieved from website: http://www.aphis.usda.gov/animal_welfare/downloads/Animal%20Care%20Blue%20Book%20-%202013%20-%20FINAL.pdf
16. Wolf song, (2011). National Wolfdog Alliance - State Regulations as they Pertain to Wolves and Wolfdogs. Retrieved from website: http://www.wolfsonalaska.org/State_Regulations_Wolfdogs
17. The Alaska State Legislature, (2014). 5.92.029 (permit for possessing live game) and 05.92.030 (Possession of wolf and wild cat hybrids prohibited). Retrieved from website: <http://www.legis.state.ak.us/basis/aac.asp#5.92.029>
18. Martin, James B.; Ritter, Bill. Colorado Department of Public Health and Environment, (2009). Rabies Prevention and Control policy. Retrieved from website: https://www.google.com/url?q=https://www.colorado.gov/pacific/sites/default/files/DC_CD_Zoo-Recommendation-Hybrid-Wolf-Vaccination-Exposure.pdf&sa=U&ei=mqJRVNWQAqK48QG6rICoCQ&ved=0CAYQFjAA&client=internal-uds-cse&usg=AFQjCNH0BAISybu35xIFGihYro6-4AlNow
19. Smithsonian National Museum of Natural History, (2011). *Canis lupus familiaris*. Retrieved from website: http://vertebrates.si.edu/msw/mswcfapp/msw/taxon_browser.cfm?msw_id=11388
20. Centers for Disease Control and Prevention, (2011). Is the animal available for testing? Retrieved from website: <http://www.cdc.gov/rabies/exposure/testing.html>
21. White, Ron; Wolf Dog Coalition, (2002). ‘Tucker’s Story’ Dog or Wolf Hybrid? Retrieved from website: <http://www.inetdesign.com/coalition/tucker.html>
22. Howling Woods Farm, (2007). APHIS Rabies Vaccine Issue. Retrieved from website: <http://www.howlingwoods.org/APHIS.html>
23. Connors, Martha Schindler. The Bark: Dog is My Copilot. (2010) Do Wolfdogs Make Good Pets? Retrieved from website: <http://thebark.com/content/do-wolfdogs-make-good-pets>
24. Bucknell University, Wilson and Reeder’s Mammal Species of the World. *Canis lupus*. Retrieved from website: <http://www.departments.bucknell.edu/biology/resources/msw3/browse.asp?id=14000738>

25. APHIS, Federal Register Volume 64, Number 187, (1999). Proposed Rule: Viruses, Serums, Toxins, and Analogous Products; Definitions. Retrieved from website: <http://www.gpo.gov/fdsys/pkg/FR-1999-09-28/html/99-25177.htm>

Letters to the Editor

To the Editor of the Star Ledger,

Please consider publishing the letter below in the Star Ledger. The issue of the rabies vaccine not being approved for wolfdogs is something many people do not know about but should be aware of. If you have any questions, please e-mail me. Thank you for your time!

If a Wolfdog Met a Rabid Raccoon

I saw an article earlier this month on NJ.com describing an incidence of a dog coming into contact with a rabid raccoon in Gloucester Township. Since the dog was up to date on vaccinations, no action was necessary to care for the dog. However, I wonder what would have happened if the dog was a wolfdog, a mix between a dog and a wolf. The rabies vaccine is not approved for wolfdogs in the United States, meaning when they go to the vet, the wolfdogs cannot receive a rabies certificate. If they do get vaccinated, it is off label. This puts both the wolfdogs and the public at risk. I wonder if the department of health would have quarantined the wolfdog or have had the wolfdog euthanized to test for rabies. It is very interesting that the USDA is not more concerned with approving the vaccine for wolfdogs, which are classified under the same species as dogs. Approval for the rabies vaccine would not promote keeping wolfdogs as pets as is the concern of the American Veterinary Medical Association but it would keep the wolfdogs and public safer from such a deadly disease.

Lisa Shatynski

To the editor of The Bark editor@thebark.com,

Please consider publishing the letter to the editor. The misrepresentation of wolf dogs and lack of an approved vaccination is an issue concerning the well-being of the animal and the general public. Making people aware of the true nature of wolf dogs would benefit many. Please contact me with any questions.

Wolf dog controversy

Wolf dogs, the offspring of a recent mating between a wolf and a dog, tend to be misrepresented and are therefore misunderstood by many. Until recently I was part of this majority. I thought they were dangerous and not safe to own as pets. However, I have since had the opportunity to meet and interact with wolf dogs of a variety of wolf content. Many are shy and timid until they get used to a new person. Others are more outgoing. They did not show any signs of aggression nor appear to be dangerous. They just wanted to be petted and given attention and treats like any other dog. This started my interest in wolf dogs. I was surprised to find that there aren't any

approved rabies vaccinations for wolf dogs. While they are routinely given dog rabies vaccinations, not having an approved vaccine lowers the vaccination rate and having an unvaccinated animal poses a risk to the animal and also to people. Even though the vaccination is considered to be safe and effective if wolf dogs, since it is not labeled for them they are considered unvaccinated. This could be a matter of life and death if a bite incident occurs by a wolf dog, as they are treated as unvaccinated and may be euthanized regardless of the circumstances. Getting an approved rabies vaccination is an important step in protecting wolf dogs and the general public, but it is nearly impossible since these animals are misunderstood. I have found that many others have had a similar experience when meeting a wolf dog and encourage dog lovers to re-examine their view of wolf dogs.

Kimberly Davis