

Ferrets: a Selective Overview of Issues and Options

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This is a selective review of background and issues, drawn primarily from existing documents and articles, supplemented by interviews with state and federal personnel in several states.

What is a ferret?

“Ferret” is the common name for *Mustela putorius furo*, a subspecies of the polecat, *Mustela putorius*. (The skunk, sometimes incorrectly called a “polecat” is a different species from the polecat, although both species emit a malodorous spray.)

The black-footed ferret, *Mustela nigripes* is a different species, and is endangered. In 1986, only 18 individuals of the species remained, although an effort is underway to breed and reintroduce the species into the Midwest area of the U.S.

Except as otherwise specifically noted, the information below refers to the domesticated ferret, often kept as a pet where allowed (currently in all states but California and Hawaii) and sometimes used for hunting and pest control. This discussion does *not* encompass the black-footed ferret or the polecat except as explicitly mentioned.

Ferrets are sometimes humorously called “carpet sharks” and described as “fur-covered Slinkies” (in recognition of their flexibility) or “sock-puppets with legs.” They are widely viewed as playful, curious, highly active, and sociable, although not inclined to become attached to a home (“lacking a homing instinct”). They are carnivores and require a meat-based diet. Their teeth are unusually sharp, even when they are quite young, and they tend, as one biologist put it, to “explore the world with their mouths.”

The domestic ferret can interbreed with the European polecat and is related to a family of animals that include weasels, skunks, the black-footed ferret, and the steppe polecat. Evidence on the origins and biological pedigree of the domestic ferret is subject to some disagreement in the literature. Ferrets are claimed to have been domesticated for over two thousand years,¹ and have been used as aids in hunting, especially rabbits.

Ferrets are permitted as pets in all states of the continental U.S. except California, and some observers estimate that there are from 100,000 to 500,000 domestic ferrets kept as

pets in California despite the prohibition. A Michigan official noted that Michigan went from zero ferrets (officially, as they were prohibited) to 200,000 overnight when they were legalized a few years ago, and “they did not all just come in over the state line that day.”²

What Are the Asserted Issues With Respect to Ferrets?

Three primary points have been raised by the California Department of Fish and Game in “Department of Fish and Game Ferret Fact Sheet, March 25, 1994.”³ Views expressed in this fact sheet may be summarized as follows:⁴

1. Ferrets may bite (and perhaps otherwise attack), and may be especially prone to bite or scratch children and infants.
2. There is no proven vaccine against rabies in ferrets.
3. Ferrets may threaten native wildlife.

The discussion below summarizes these views, responses to them, and available information.⁵

1. Bites and other attacks

DFG Views

The Department of Fish and Game has asserted that ferrets have a proclivity to bite and may bite in a frenzied fashion that is especially dangerous to small children and infants.

Ferret Proponents’ Response

Proponents respond that ferrets are less likely to bite than are dogs and cats and have not exhibited large numbers of bite incidents.

Evidence and Discussion

A few incidents of severe attacks on children or infants by ferrets have been cited. Among these was an attack on a young girl who testified at the April 15, 1997, hearing of the Assembly Committee on Water, Parks, and Wildlife. The attack had taken place when the girl was an infant. That incident caused severe facial damage, only partially repaired through plastic surgery. The most egregious incident cited by DFG, one that resulted in death, involved two starved ferrets reportedly left alone with an infant through parental neglect.⁶

By comparison, a 1989 article in the *Journal of the American Medical Association* reported that “more than 2 million persons are bitten [by dogs] yearly,” with a particularly high death rate for infants.⁷

After adjusting for comparative numbers of the animals, dogs are at least 200 times more likely to bite than are ferrets, according to data for 1978 to 1988 reported in the *Journal of Veterinary Medicine* and calculations based on estimated numbers of dogs and ferrets.⁸

Conclusion

Ferrets have not been demonstrated to pose an unusual risk of bites, but like all domestic animals are capable of inflicting injury, have done so in documented cases, and should never be left alone with infants or small children. Pet ferrets should be raised in a way that discourages biting and other aggressive behavior and encourages docility.

2. Rabies

DFG Views

The Department of Fish and Game has asserted that there is no proven vaccine to prevent rabies in ferrets.

Ferret Proponents' Response

Proponents respond that a rabies vaccine (IMRAB-3) exists and meets standards for effectiveness.

Evidence and Discussion

Rhone Mirieux, the producer of the rabies vaccine IMRAB-3, has formally advised the Department of Fish and Game (by letter, April 6, 1994) that its vaccine exceeds U.S. Department of Agriculture requirements in ferrets, and has advised the department to cease claiming otherwise.⁹

It should be noted, however, that ferrets are typically sold at 6 to 7 weeks, but cannot be inoculated against rabies until 12 weeks.¹⁰ This puts the burden of assuring inoculation on the new pet owner.¹¹ The same burden applies to those who acquire kittens and puppies, which are typically taken to a new home at about 8 weeks but not inoculated until age 4 months.¹²

Documented cases of rabies in domestic ferrets appear to be extremely rare (only 21 documented from 1958 to 1996).¹³ This may in part be the result of domestic ferrets, unlike cats and dogs, being almost exclusively housebound. (They tend to wander away from home if left outside, and rarely find their way back.) Pet ferrets, therefore, are relatively unlikely to encounter a rabid animal from which they might acquire the disease. Statistics cited above appear to bear this out.

Conclusion

Rabies vaccination should be required for domestic ferrets, just as it is for domestic cats and dogs. Ferrets sold at or after 12 weeks of age should be vaccinated before sale. For those sold at the typical 6 to 7 weeks, it is vital that owners be advised of the requirement to have the animals vaccinated at 12 weeks.

3. Hazard to wildlife

DFG Views

The Department of Fish and Game has asserted that domestic ferrets may escape their homes, form feral colonies, and prey on native wildlife. The Department also asserts that ferrets may carry diseases that could threaten native wildlife.

Ferret Proponents' Response

Proponents respond that ferrets do not ordinarily survive more than about 3 days outside the home and are not known to have established feral colonies anywhere without substantial, concerted efforts to create such colonies.¹⁴

Evidence and Discussion

Robert S. Ellarson, of the University of Wisconsin, asserts in the article "Ferrets" in *Encyclopedia Americana* that ferrets do not survive more than about 3 days in the wild.

Some experts believe on the basis of observation and experience that ferrets could survive longer than 3 days, but that survival would be in weeks, not months.¹⁵ One wildlife biologist, however, did assert that he has seen the killing ability and instinct in ferrets personally, and offered the opinion that individual ferrets could survive and predate.¹⁶ Dean Biggins, a leading expert on the black-footed ferret and project leader for the black-footed ferret project, U.S.G.S. Biological Resources Division, did explain how difficult it has been to reestablish those animals in the wild, even though they are much closer to their wild progenitors (in terms of generations in captivity) than are domestic ferrets. He noted that ferrets keep their ability to hunt and kill better than the ability to elude predators. He asserted that escaped domestic ferrets (like the black-footed ferrets) are more likely to *become* prey than to survive long as predators in any area with predators (including cats and dogs).

The latter point bears on the feral colonies of ferrets in New Zealand. Ferrets (and other predators) were introduced there to combat unwanted rabbit populations. The feral colonies could be established and maintained there because of a lack of predators that in other places would kill the ferrets. New Zealand, therefore, differs from the United States.

In the United States, ferrets would likely fall prey to cats, dogs, various wildlife, and even some raptors (birds of prey, such as hawks).¹⁷

Discussions (by telephone) with personnel in Arizona, Colorado, Florida, Massachusetts, Michigan, South Carolina, and Wyoming elicited no evidence of feral colonies of ferrets or of any significant survival of the animals in the wild, nor of reported impact on native wildlife caused by escaped domestic ferrets. This is consistent with the reports from various state wildlife agencies included in the California Domestic Ferret Association compilation.¹⁸

Conclusion

It appears improbable that domestic ferrets could establish feral colonies in California, given the risks of ferrets themselves being prey. While individual ferrets might survive up to a few weeks in the wild, they are very unlikely to survive longer than that. Despite the lack of documented examples,¹⁹ the possibility cannot be excluded that escaped ferrets might do significant damage to wildlife, such as ground-nesting birds, and possibly including endangered species, during a period up to a few weeks of survival, even without establishing continuing colonies. Ongoing releases or escapes of domestic ferrets might replenish the population in the wild, even if the animals were not reproducing, and this could contribute to a continuing hazard to wildlife.

Ferrets would be less likely to pose a hazard of “going feral” if (1) sales of ferrets within California were limited to licensed breeders and suppliers; (2) ferrets were required to be spayed or neutered (possibly with a registration requirement to encourage compliance); (3) any pet ferret brought into the state (not purchased from a recognized, in-state breeder or supplier) were required to be spayed or neutered (and registered, if appropriate); and (4) a public education campaign were conducted within the State to inform Californians of proper care for ferrets, including the importance of keeping them indoors or under proper supervision when outdoors, and the requirement that they be spayed or neutered.

No one can predict with certainty whether ferrets would damage native wildlife in California. California Department of Fish and Game wildlife biologist Ronald Jurek noted that even 20 years ago, the red fox, which was introduced into the state (though not as a domestic animal) a century ago, was not viewed as a threat, although it has clearly become one since.²⁰

How Could the Issue of Wildlife Impact be Tested?

Following are options for consideration. These are not intended as recommendations.

Wildlife biologists might be able to fit a number of ferrets with miniature transmitters and set them loose in a designated area to track their movements. If the ferrets do not survive, that would tend to support the view of the proponents. If they in fact attack wildlife or

endanger habitat in the designated area and if they survive for a significant period, then that would be significant evidence against legalization. Alternatively, a number of ferrets could be set loose in secured areas (but not fitted with monitoring devices) and their survival and impacts observed over a period.²¹

Alternatively, and easier to accomplish, the Legislature could commission an extensive and impartial survey of states in which possession of ferrets is legal, conducted by an agency or organization, such as the California Research Bureau, that is not a party to the dispute over legalization, to determine what impacts have been observed. Such a survey could query academic experts, state wildlife officials, state and local chapters of wildlife organizations, veterinary organizations, and farm organizations.

Selected Policy Options

The following are options, not recommendations.

- **No change--continued prohibition.** Continue to prohibit domestic ferrets in California. One risk of this option is that the ferrets that are already kept as pets in California would be less likely to receive necessary and appropriate vaccinations and veterinary care than they would if permitted.
- **End the prohibition without restriction or qualification.** One risk of this option is the possibility of escaped or released ferrets becoming a nuisance or a hazard to wildlife.
- **Permit ownership of pet domestic ferrets (*Mustela putorius furo*), with requirements** that they (1) be provided only through licensed breeders/sellers (or through animal welfare agencies, such as local animal control departments and humane societies), (2) be vaccinated against rabies (and other diseases as may be appropriate as a public health concern), (3) be spayed or neutered before being sold or given to pet owners,²² and (4) be the subject of a public education campaign designed to assure that pet owners understand the circumstances under which ferrets are and are not appropriate pets. This option might reduce the risks of the previous option, but would involve potential costs of regulation, enforcement, and education.
- **Permit ownership of pet domestic ferrets, with requirement for a subsequent formal study of impact on wildlife.**²³ This option was proposed in the April 15, 1997, hearing of the Assembly Water, Parks, and Wildlife Committee as an amendment to AB 363 (Goldsmith). Under this option, details yet to be announced, a formal scientific study would be commissioned for completion within five years of legalization of pet ferrets. The study would determine what impact on native wildlife, if any, had resulted from the change in the law through infiltration of escaped ferrets into natural settings.

This option raises a possible concern that, if the study found detrimental effects, it would be too late or too difficult to correct them and disruptive to attempt at that time to again prohibit ownership of domestic ferrets in California. It is possible that legalization would lessen the care with which current (but illegal) ferret owners assure that their pets do not leave their homes, and that there might therefore be increased risk of predation by ferrets upon native wildlife or even establishment of feral colonies.

On the other hand, this option would provide at least some assurance that impacts would be studied properly within a defined and reasonably near-term period while enabling ferret owners to have their pets vaccinated, spayed or neutered, and provided with other necessary and appropriate veterinary care, which is not currently available in California.

Those who are confident, on the basis of existing data, that domestic ferrets do not pose a risk to native wildlife in California may favor the choice to legalize now, with the safeguard of follow-up study of impacts. Those who feel that the evidence indicates a demonstrated threat to native wildlife may prefer to study potential impacts more thoroughly before legalization in California. Such a prior study could take the form of (1) scientific testing of ferret survival capacities in California under controlled conditions, (2) systematic examination of evidence from other states and nations and preparation of an impartial and thorough report on the findings, or (3) both.

Sources

This overview has drawn from encyclopedias and newspaper, magazine, and journal articles; information (unverified but consistent with other sources consulted) posted on various ferret-related sites on the Internet; a compendium of documents labeled "Ferret Legalization in California" provided by the California Domestic Ferret Association (apparently 1995); an interview with California Department of Fish and Game wildlife biologist Ronald Jurek; and interviews with state officials and staff members in Arizona, Florida, Massachusetts, Michigan, and South Carolina, and federal wildlife biologists in Colorado and Wyoming. I have also spoken online with some ferret owners in other states (by way of America Online) and with the President of the Great Lakes Ferret Association (by telephone).

Notes

¹ Wildlife Biologist Ronald Jurek, of the California Department of Fish and Game, disputes this assertion, and believes that the ferret has been domesticated for a far shorter period. (Personal communication, April 25, 1997.)

² Dr. Stephen Halstead, head of the Companion Animal Program, within the Division of Animal Industry, personal communication, April 4, 1997.

³ The Department of Fish and Game provided this two-page fact sheet in April 1997.

⁴ Other issues are addressed in the fact sheet as well. The ones listed here appear to be the most prominent in public discussion of ferret legalization.

⁵ This is by no means an exhaustive review of the literature regarding ferrets. Wildlife biologist Ronald Jurek, of the Department of Fish and Game, has advised me that a review of evidence regarding ferrets is being prepared for publication (and is currently in draft form) by researchers with the University of California at Davis. (Personal communication, April 25, 1997.)

⁶ See letter from Dr. Graham Wellstead to Floyd L. Carley, August 27, 1995. This is "Exhibit 18" (pp. 157-162, of the compilation titled "Ferret Legalization in California," prepared by California Domestic Ferret Association and cited below simply as "the compilation." See particularly at p. 158, last paragraph.

⁷ Jeffrey J. Sacks, Richard W. Sattin, and Sandra E. Bonzo, "Dog Bite-Related Fatalities From 1979 Through 1988," *JAMA*, September 15, 1989 (Vol. 262, No. 11), p. 1492. This is "Exhibit 20" of the compilation, pp. 170-173.

⁸ See, for example, Michael Lynch, "Ferretting out the Facts on the California Department of Fish & Game War on the Domestic Ferret" (Pacific Research Institute for Public Policy briefing, May 1996, p. 15), which in turn cites 193 *JAVMA* 1031 (1988). An extract from the latter is included in the compilation as "Exhibit 17," p. 154.

⁹ "In February 1990, the first rabies vaccine was approved by the U.S. Department of Agriculture for use in ferrets. Rhone Merieux, with their IMRAB-3 was shown to be at least 94.4% effective in preventing rabies in ferrets for up to one year following vaccination. This was verified through testing 90 ferrets, 3 times the number of animals required by the USDA. The vaccine has a proven effectiveness greater than required (86.7%, a number derived for the dog.)" Richard K. Bossart, "Ferret Rabies Information Summary," <http://www.acmeferret.com/infobank/research.htm>. See also Charles E. Rupprecht, et al., "Current issues in rabies prevention in the United States: health dilemmas, public coffers, private interests," *Public Health Reports*, September 19, 1996 (Volume 111, No. 5). The latter report alludes to rabies vaccination for ferrets (not mentioning IMRAB specifically), and cites (at note 17) a 1990 publication in the *Journal of the American Veterinary Medical Association* (196:1614-1616) reporting "Evaluation of an inactivated rabies virus vaccine in domestic ferrets" (M. Niezgoda, et al.). The Rupprecht, et al., article noted that "Since 1958, only 21 rabid ferrets have been documented by CDC through national surveillance activities" (in contrast to 146 cases for dogs in 1995 alone).

¹⁰ The State of Michigan, which legalized ferrets in 1995 and modeled its laws after those of other states where the animals were already permitted, requires that ferrets 12 weeks of age and over be vaccinated against rabies by a veterinarian. (Marsha Weld, Companion Animal Program, personal communication, April 28, 1997). Vaccination of ferrets against rabies is required in all nine states with which Micki Wingate, President of the Great Lakes Ferret Association (headquartered in Michigan) is familiar. Ms. Wingate believes the rabies vaccination requirement to be typical of virtually all states that permit ferrets. (Personal communication, April 28, 1997.)

¹¹ Bob Arini, Division of Fisheries, Wildlife, and Environmental Law, State of Massachusetts, by telephone, April 2, 1997. Mr. Arini added that ferrets are less effectively socialized at age 12 weeks, so pet stores (and ferret buyers) prefer not to wait until the animals are old enough for vaccination.

¹² Information provided by Greenback Veterinary Clinic, Orangevale, California.

¹³ See note 8.

¹⁴ I have not seen responses specifically related to DFG's expressed concerns about spread of disease to native wildlife by ferrets. DFG expresses concern that ferrets "*could* expose native California wildlife to" Aleutian disease [emphasis added], but does not cite examples of such spread in its fact sheet.

¹⁵ This view, expressed explicitly by Dr. Stephen Halstead, head of the Michigan state "Companion Animal Program," is consistent with comments offered by wildlife research biologist Dean Biggins, project leader for the black-footed ferret project, U.S.G.S. Biological Resources Division.

¹⁶ Mike Lockhart, U.S. Fish and Wildlife Service, personal communication, April 3, 1997.

¹⁷ These comments reflect views of federal wildlife biologist Dean Biggins (personal communication) and of ferret expert Graham Wellstead, of England, who testified at the April 15, 1997, hearing of the Assembly Committee on Water, Parks, and Wildlife.

¹⁸ These reports are reproduced in "Exhibit 2" of the compilation, but are all about 9 to 10 years old.

¹⁹ Excluding the unusual cases of deliberate introduction of ferrets in New Zealand and on San Juan Island, off the coast of Washington State.

²⁰ Interview, April 25, 1997. For additional information on the red fox in California, see "Managing Non-Native Species in California: The Red Fox," California Department of Fish and Game (undated).

²¹ I have not attempted to determine whether these options are actually feasible.

²² Ferrets may be spayed/neutered as early as 6 to 7 weeks, the age at which they typically might be sold to pet owners.

²³ Adoption of this option would not preclude other precautions, such as mandating of spaying/neutering, requirement of vaccination, and public education about any risks associated with domestic ferrets.