

WILD, INVASIVE, DOMESTICATED, OR TAME: HOW TO DESCRIBE A BIRD

By Constance Woodman

The terms used to describe "wild animals" can be a source of conflict during heated discussion. Terminology becomes very important when aviculturists interact with law and policy makers to address dangerous animal laws, ownership bans, invasive species, and naturalized exotic bird populations.

A source of conflict during discussions are terms with different meanings for different people. During normal conversation, for example, "wild" can describe a companion animal that acts unpredictably, or could describe an animal that lives in nature. Other terms, such as "exotic," "native," "tame," or "invasive," can carry many different meanings depending on how they are used.

Definition	Example
Wild: An animal living without human help in the same place as its ancestors.	African grey parrot living free in Nigeria.
Tame: An animal that has learned behaviors to peacefully co-exist with humans. The animal is socialized or habituated to human beings.	Chickadees that perch on people and take seed from hands in a park even though humans have not selectively bred them.
Naturalized: An animal group living and reproducing without human help in a different place from their ancestors.	Japanese white-eyes in Hawaii cause native bird babies to be stunted due to lack of food.
Domesticated: Animals bred by humans for desirable traits, different genes than their ancestors.	An Indian runner duck, a breed selectively bred from wild caught mallard ducks to lay many eggs with loss of flying ability.
Feral: A domesticated animal living without human help.	A duck from the muscovy domesticated breed living free with wild mallard ducks.
Native: An animal whose ancestors lived in a given place.	Canadian geese, who species originated in North America, are native to the United States.
Exotic: An animal whose ancestors did not live in a given place.	Canadian geese, who species originated in North America, are exotic to the United Kingdom.

One way to avoid confusion and conflict is to borrow the meanings used by biologists, as shown below. Though, even when the definitions are clear, whether or not a specific bird fits the definition can be a source of debate!

For example, we can discuss these terms in regards to the Peach-faced lovebirds in Phoenix, Arizona. (Officially, Peach-faced lovebirds have been re-named Rosy-faced lovebirds by the International Ornithological Congress.) They are exotic in the United States, being native African birds. In human homes, the companion Peach-faced lovebird can be hand-tamed. Domestication of Peach-faced lovebird is in very early stages, where color mutations are selected for by breeders, but only in some cases. Outdoors, Peach-faced lovebirds are naturalized, surviving independently in the suburbs where they feed on plant food sources and backyard birdfeeders. Lovebirds may be invasive because they will utilize cactus cavities that native birds might need for nesting, however the impact of Peach-faced lovebirds on native species is not well-studied.

In regard to a couple of the terms I have presented, aviculturists tend to raise questions surrounding two of the biology definitions. The first term that gets questioned is "domestication", and the second is usually "invasive."

In common language the word "domesticated" is like a key to unlock public acceptance, especially with legislators. The common meanings of exotic or wild are perceived as bad, with legal ownership and even conservation-related



breeding facing hurdles due to exotic and wild animal laws.

A point that is often voiced by aviculturalists is that captive birds that are socialized to live with humans aren't just tame, they act like domesticated animals. This can be very true. Birds that are raised by and live with humans will act like part of the family: A Harris' hawk kept by a falconer, with its mew in the kitchen, or a companion parrot who perches on the back of the sofa to watch television, will both behave very differently from wild birds. However, if we choose to use the biology definitions, being socialized and tame is not the same as being domesticated.

An important distinction to make is that learning to behave nicely around humans is very different than being genetically programmed to like humans! Usually, domesticated animals mesh well with human lifestyles because the animals have been selected to like people. A domesticated dog puppy with limited experience near people will still approach humans for affection and play because thousands of generations of dogs before it were allowed to breed only if they were friendly toward humans. This is also the case for domesticated cattle, such as zebu, that can love being scratched and petted by people and will come over for attention without causing any issues. Whereas a wild relative of domesticated cattle, the American bison ...not a good friend for snuggles. A wild relative of the domesticated dog, the grey wolf, provides a similar situation: Approaching a young wolf that is not familiar with people is probably not a safe idea.

What makes wild birds, especially parrots, so able to live with us without domestication is that innate wild traits include being social, as well as being intelligent and flexible enough to adapt to a variety of situations that are very different than the wild environment. However, a captive parrot with the same genes as its wild cousins, no matter how well it integrates into your life, is not domesticated when the biology definition is used.

Aviculture has domesticated a number of birds including chickens, turkeys, ducks, geese, pigeons, and guineafowl. The canary is an excellent example. It has been selectively bred for centuries, possesses traits its original wild ancestors do not, and thanks to selection efforts, canaries breed readily in captivity. (Compare the ease of canary breeding to the difficulty of captive breeding of some finch species that have only been bred in captivity for a few decades.) As we propagate other finches we are selecting those who reproduce well in captivity, and thus are slowly starting to domesticate them as well. Though, the controversy of using foster parents for hard to breed finches brings up another point: We can select for any trait we choose, so it is possible to select for parenting genes that are or are not compatible with captive life as we selectively breed the wild type bird into a domesticated form.

The second term that often starts discussions is "invasive." In common language, an invasive animal can be any animal that is exotic. But the biology meaning refers to whether an exotic animal introduced to a new place harms the other species around it. For example, Asian ring-necked pheasants tend to stay near farm land and there is little evidence to suggest their presence in North America harms the native wildlife. So, even though the ring-necked is an exotic, it has naturalized without becoming invasive. Sometimes naturalized species are beneficial to their new home, but such examples are often controversial even when there is clear evidence that the naturalized species offers benefits to other species it lives with.

Due to the extreme and serious damage some invasive species have done "the language used to describe non-native species in the scientific literature is frequently scattered with militarized and xenophobic expressions (e.g., 'war on aliens' and 'American ecosystems under siege by alien invaders')," to quote writing by Martin Schlaepfer, Dov Sax, and Julian Olden.

Where tempers run high in aviculture is when exotic birds that have naturalized are declared invasive in situations where the birds appear unable to naturalize away from human cities (which are already filled with other exotics such as starlings, European pigeons, and European sparrows.) Then, the aviculturist is banned from keeping or breeding the bird.

When we discuss naturalized versus invasive species it is the evidence that determines whether or not a species is invasive. Parrots (except for the last native United States parrot, the Thick-billed parrot) are all exotic. But are they harmful when they interact with other species? In the Peach-faced lovebird discussion, the use of nest cavities by lovebirds could disturb native species. However, if the lovebirds cannot live beyond the boundaries of the suburbs then their impact is quite different than if they multiply by the thousands and enter the fragile desert ecosystems. A major issue with the invasive species

discussion is that conservation science is only beginning to understand how exotic species integrate and interact in new ecosystems, so no one can predict what will happen over time. (Certainly, a quaker parakeet colony loose in Hawaii's rich but imperiled forests would have a very different effect than Quakers in Boston, but the exact difference isn't known.)

Quaker parakeets' ability to survive in almost any condition has caused action to be taken to prevent an invasive species scenario, leading to their banning as pets in Colorado, Georgia, Kansas (owning by permit only), Maine (owning by permit only), Kentucky, New Jersey (owning by permit only), Pennsylvania, and Wyoming, and Hawaii.

How we discuss birds, and the definitions we choose to adopt for our language affect the larger discussions of legality and conservation that AFA members participate in. Right now, the interactions between aviculture, regulation, and conservation are complicated. For example, we can't breed Thick-billed parrots without difficult hurdles and special permits, despite their serious decline in both captivity and the wild. How we discuss these issues and how AFA members educate themselves and the public will shape our ability to help guide aviculture to its best possible future in the United States, and help to stop negative conflicts and scenarios that are based more on legislative backlash than evidence and discussion.

