

Victoria Voith, Ph.D., DVM, DACVB discusses her research on visual breed identification of dogs of unknown origin in an NCRC video interview, transcribed below and available at www.nationalcanineresearchcouncil.com.

NCRC: How accurate is visual breed identification of dogs of unknown origin?

Dr. Voith: I've recently been involved in some research looking at how often people agree as to what a dog is if it's a dog of unknown origin and then how that correlates with DNA analysis of the breed identification.¹ And in general, there's not much agreement in any of those things. Very often, people disagree as to what a breed is in a mixed breed dog. And most often, they're not naming the breed that is identified in DNA. Even when the majority of people may agree as to what a dog – mixed breed dog – might be, it's not 100%, it's not usually 90%, and even if it's 80% that do agree, it may not be one of the breeds that's identified by DNA.

The companies that provide the DNA testing have some information they release regarding its accuracy. And currently, there are commercial companies that have 90% accuracy for an F1 generation cross. F1 generation cross is a purebred crossed with another, different purebred.

If anyone is missing a dog they need to go to a shelter and look for it personally, because often the identifications may be wrong. You need to go in and look because what the shelter personnel – someone in the shelter - may have said is a Husky or is a Chow mix may not be what the owner thinks its dog looks like.

NCRC: How has inaccurate breed identification led to poor policy making?

Dr. Voith: There are several problems with Breed specific legislation and housing regulations and restrictions on dog ownership. One is the information that people think it was based on *is probably not accurate*. There were studies done 20, 30 years ago based on newspaper reports as to what the predominant breeds were in attacks by dogs or bites by dogs, yet there was no way to corroborate whether or not those were actually the breeds. And we now know that most people can't visually identify very accurately or even agree among themselves what breed a mixed breed dog is.

So, all of the legislations and laws based on old information in the literature may not be reliable or valid.

NCRC: Can you predict a dog's behavior based on its breed?

Dr. Voith: You can't definitively predict a dog's behavior based on a breed identification by DNA. There's just way too much variability among dogs. Anybody who's had more than one child or who has ever had a litter of dogs knows there's tremendous individual variation in siblings. So, even if it's [been breed - identified correctly], you can't predict what it's behavior is going to be.

One really needs to look at the individual dog and base legislation and regulations on dangerous dogs - and by some kind of criteria, not on breed.

¹ See also: Voith, V., Ingram, E., Mitsouras, K. & Irizarry, K. (2009). Comparison of Adoption Agency Breed Identification and DNA Breed Identification of Dogs. *Journal of Applied Animal Welfare Science*, 12(3): 253-262.