

Unraveling the Mystery of Mutts and Mixes

By *Kat Burns, CVPM Humane Society of Boulder Valley*



Looking at those floppy ears, bushy coat, curly tail and 35 pounds of happy, spoiled dog, I have no idea what breed makes up my dog Bailey. When we adopted her, she was a puppy with all the coloring and coat type of a German Shepherd Dog. So the Humane Society of Boulder Valley’s shelter personnel listed her (a decade ago) as a German Shepherd “mix.”

But her ears never perked up straight and tall. Bailey never made it past 40 pounds at her heaviest. Her tail refuses to uncurl, even when she is sleeping. Her ears hang low on her head – a bit like the cartoon character Snoopy. I think she’s pretty darned cute, but she’s probably *not* a German Shepherd Dog. We thought maybe she was part Norwegian Elkhound, or maybe even a Shiba Inu cross.

Like many guardians of a mixed-breed dog, I’m curious. Shelters like the Humane Society of Boulder Valley are often relying on looks, character and experience to determine the breed ancestry of an “unknown” dog. This is particularly true for puppies where looks may not yet be fully developed. Despite the skill of these experienced staff, errors are bound to occur.

For the inquisitive, like me, there are a variety of DNA tests available to determine the breed background of your canine companion. These DNA tests look for breed-specific genetic markers. There are two basic types of tests available. The first type is a blood test done by your veterinarian. The second type is done by cheek swab either through your

veterinary clinic or by purchasing a take-home, do-it-yourself kit. Both types of tests can be performed on canine companions of all ages, and both require a nail-biting three- to four-week wait for results.

The results report shows you the ancestry of your dog by breed based on the genetic markers detected in the DNA. Some DNA tests can detect about 120 different dog breeds, while others can detect more than 200 breeds. Pricing varies significantly too, so do your research before purchasing a test kit or scheduling a veterinary visit. It's also good to note that most dog breeds are made up of other "origin" breeds that were blended centuries ago. Sometimes the "origin" breeds have a stronger genetic marker than their more popular descendants. They may appear in interesting ways on a canine DNA test. For example, it would not be terribly surprising for your Rottweiler to turn up with the marker for Italian Mastiff. A result like that wouldn't mean that your dog isn't actually a Rottweiler. So it's good to research the origins of the breed you think your dog may be.

So ... what kind of dog is Bailey?

It turns out my curly-tailed, bushy-coated dog is part Dalmatian and part Cocker Spaniel. I know. My eyebrows went up too. I even re-tested her. Twice. Same thing. Most of the complaints about canine DNA testing come from guardians like me who are surprised by their dog's ancestry. I understand that. As a pet guardian, I wanted to know why my dog *looked* the way she looked, and for Bailey, the test didn't tell us that.

But it did tell us something. Discovering her breed ancestry explained quite a bit about some of her behavior characteristics. My colleagues, who are experts in behavior here at the shelter, nod with sage understanding when I tell them that Bailey is Dalmatian and Cocker Spaniel. They can see those breeds in how she behaves. An example of this is a unique "whistling yawn" vocalization common to Dalmatians, which Bailey does whenever she is flirting for a dog biscuit. She also loves to flush small game and birds like many spaniels are bred to do. Bunnies and robins beware; our Bailey is always on the lookout! And now we know why!

Are you curious too?

Contact your veterinary clinic to see if they offer DNA testing, either as a service or as an over-the-counter product to take home. The take-home, do-it-yourself kits are available for purchase in the Humane Society of Boulder Valley's shelter retail store. If you get some fun or funky results and have a story to share about your "unknown" mixed-breed dog, we'd love to hear about it! Email me at kat.burns@boulderhumane.org.

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