

# New research finds Australian labradoodles are more poodle than lab. Here's what that tells us about breeds

September 11 2020, by Frank Nicholas, Claire Wade

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Credit: Nataliya Vaitkevich from Pexels

[It all started](#) in the late 1980s. Wally Conron, a breeding manager for Guide Dogs Victoria, noticed that some people needing a guide dog

appeared to be allergic to the shedding hairs of Labrador retrievers.

Aware of the perception that poodles shed little hair and so shouldn't create such a reaction, Wally crossed a Labrador retriever with a standard poodle. The result proved to be successful, and breeding "labradoodles" took off around the world, with Wally left [standing on the sidelines](#).

[In a new study](#), an international research team has documented the molecular basis of the Australian labradoodle. Their main conclusion is that animals in the Australian labradoodle [breed](#) registry are mostly poodle, and not a 50-50 split as might have been expected. It's also important to mention the Australian labradoodle is a budding breed, not yet an official one.

These results aren't surprising to animal geneticists. They provide [scientific evidence](#) for the common understanding of how breeders choose [dogs](#) to mate for their desirable traits, such as a poodle-like coat. And over generations, this preference leads to a strong genetic predominance in the new breed.

## What the research found

The researchers from U.S., Pakistan and South Korea analyzed genetic data from individual Australian labradoodle dogs and a variety of other breeds, including Labrador retrievers and poodles of different varieties. They included dogs from the two distinct types of labradoodles:



This is Sultan, the very first Labradoodle. Credit: Guide Dogs Victoria

### **Labradoodles: the offspring of a Labrador and a poodle**

Australian labradoodles: dogs resulting from generations of breeding and selection among the descendants of early crosses between Labrador retrievers and standard poodles and (as it turns out) the occasional other breed.

So what did the researchers discover? Not surprisingly, the actual offspring of a cross between a Labrador and a poodle have an equal share of genetic material from each breed. We expect this because each pup will have one Labrador chromosome and one poodle chromosome for each chromosome pair.

Also not surprisingly, individual dogs of the Australian labradoodle breed have a range of proportions of Labrador and poodle ancestry, strongly tending towards the poodle.

When first generation labradoodles are bred together, their resulting descendants have a range of genetic contributions from the Labrador or poodle grandparents.

Any pup can have 100% Labrador DNA, 50% poodle DNA or 100% poodle DNA at any particular gene. If a pup accidentally inherits no poodle DNA at the relevant coat genes, then it will have a Labrador coat.



Credit: AI-generated image ([disclaimer](#))

Given the main initial aim of creating labradoodles was to make use of



the perceived low-allergenic properties of poodles, the higher proportion of poodle ancestry in Australian labradoodles is expected after generations of selection for a poodle-like coat. This is the main conclusion of the paper just published.

Interestingly, the researchers make the important point that even though a poodle-like coat is widely regarded as being lowly allergenic, there seems to have been no research study that has investigated this. This is an important knowledge-gap that needs to be filled.

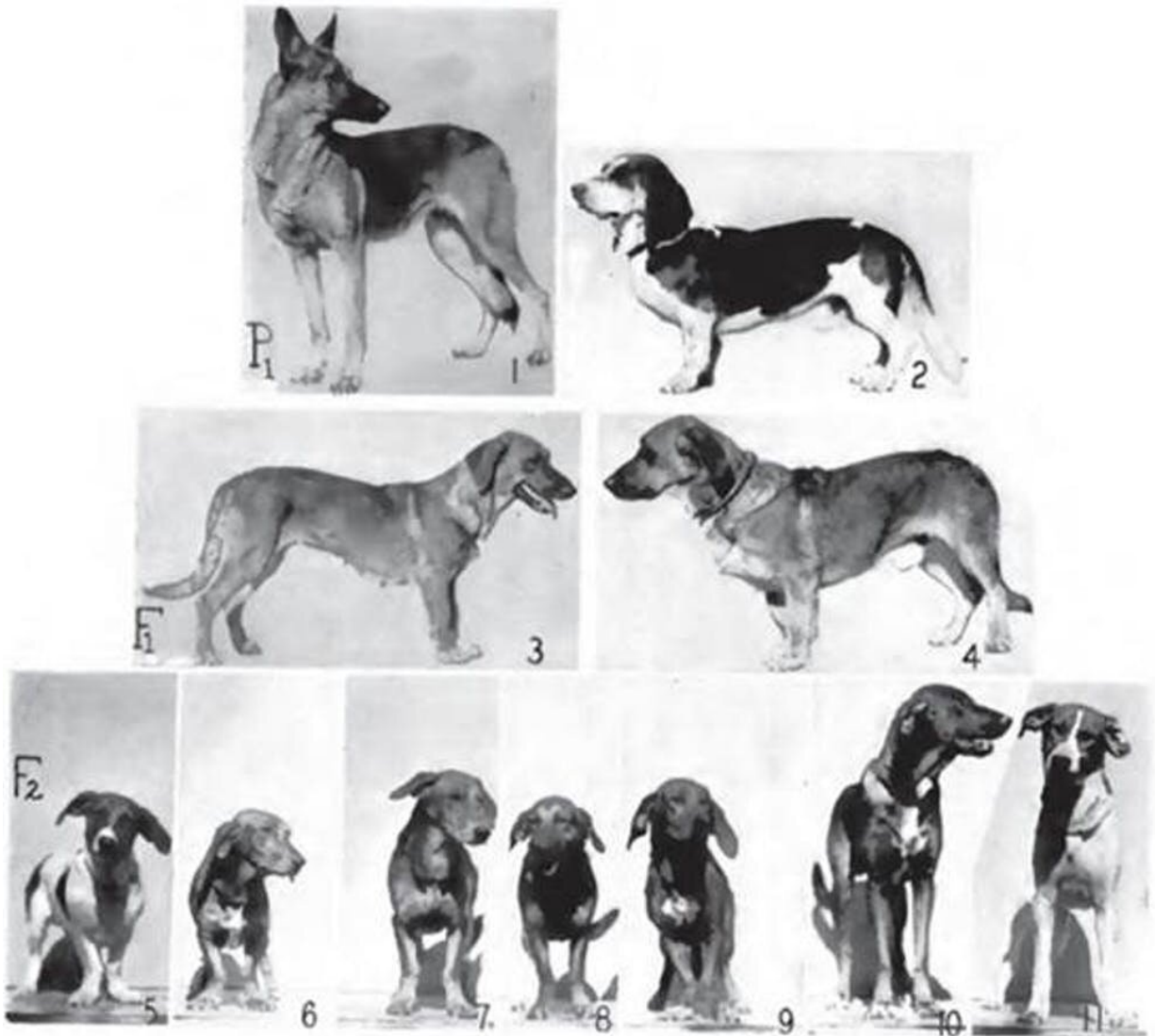
The study also found other breeds have made small contributions to Australian labradoodles, including poodles of different size varieties. There's even a touch of spaniel.

This is a common occurrence. As soon as breeders decide to mix two breeds in the hope of combining some desirable traits, it makes sense to introduce other breeds if it's thought they could make a useful contribution. For example, a cockerpoo (cocker spaniel crossed with a poodle) might have been mixed in to make the breed smaller.

## **What does this tell us about the concept of dog breeds?**

This study reinforces the common understanding that, from a biological point of view, a breed is an amalgam of genetic variation derived from various sources. It shows Australian labradoodles have considerable genetic diversity, most of it derived from poodles.

PLATE 2



This time-honoured illustration shows how the first-generation offspring of two breeds is similar (all having exactly one-half of chromosomes from each parental breed), in contrast to the substantial variation in subsequent generations. Credit: M. Burns and M.N. Fraser (1966) , Author provided

As a breed becomes more recognized and more formalized, the only

animals that can be registered as members of that breed are the offspring of other registered members. At present, Australian labradoodles are commonly regarded as a breed but are not, so far as we can determine, officially recognized as such by relevant national authorities.

Importantly, there are no scientific criteria for when a breed should become closed and when it should be formally recognized: these are decisions that are made solely by interested breeders and the registering authorities.

## **What this means for breeders**

The [Australian labradoodle Association](#) lists 32 accredited breeders which suggests the breed is a moderately-sized population in Australia. It likely produces 150 to 300 pups per year. This is a population size comparable with many other registered dog breeds in Australia.

As in any population of most animal species, problems can arise in any breed from the mating of close relatives. The more closely related the parents, the greater is the chance valuable genetic variation will be lost from a breed, and the greater the chance of offspring having inherited diseases.

Two examples of problems like this are [progressive retinal atrophy](#) (a disorder that causes blindness) and [degenerative myelopathy](#) (a disorder that causes paralysis in aged dogs).



Credit: AI-generated image ([disclaimer](#))

Fortunately, pedigree tools are available to enable breeders to consider a wide range of possible matings. DNA tests, which are becoming increasingly available for inherited diseases, can also be very helpful.

[The International Partnership for Dogs](#) provides information on resources available for breeders to improve dog genetic health.

In any case, the new research results have provided an important, solid scientific underpinning of the common understanding of how breeds are formed. By combining the desirable aspects of both Labradors and poodles in one breed, the Australian labradoodle is a welcome addition to the dog-breed pantheon.

It is to be hoped breeders of Australian labradoodles, indeed breeders of



all breeds, use the available powerful scientific tools to maintain genetic variation within their breed and reduce substantially the chance of inherited diseases.

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