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## PART EIGHT IN A SERIES

The Irish wolfhound is a magical breed. That hound beside us on our couch carries the blood of the ancients, a gentle, quirky giant

who's practically human, the stuff of myths and legends. The wolfhound attracts people who are passionate about the breed.

And like many purebred dogs today, it's a breed in danger.

### **It's Not A News Flash**

This is not fresh news. The effects of inbreeding in today's purebreds has been well-established and widely discussed. It's a solid fact, not a shot in the dark by researchers with any agenda. The gene pool for any breed of purebred dogs is by definition *closed*. Without fresh genes, genetic problems slowly accumulate in the breed. Worse, questionable breeding practices in some breeds have produced skulls too small for dogs' brains, hips too narrow for natural births and backs so sloped that the dogs suffer a range of painful bone and muscular disorders.

That Irish wolfhounds are severely inbred is not exactly news, either. Captain George Augustus Graham brought the breed back from near-extinction in the mid-1800s using a limited stock of hounds. The breed suffered genetic bottlenecks — dramatic reductions in the genes available to the breed — in WW1, WWII and in the 1950s.

But a 2012 private analysis by a Swiss expert on population genetics spelled the problem out even more precisely: your average Wolfhound born between 1965 and 2005 has 25% of its DNA in common with a single ancestor. And the gene pool has narrowed more since then.

Dr. Silvan Urfer's report has made the rounds of breed club newsletters and meetings, he's been quoted on breed-related blogs, but his findings are not widely known by most wolfhound

owners today. This is why the Wild Stare has examined selective breeding, the gene pool bottleneck and other aspects of the dilemma over the past two weeks. We need to know. We're family, people whose lives have been changed by these uncanny dogs, all keenly devoted to this breed.

And the time is now or never to follow Urfer's recommendation for saving the breed so future generations can *have* Irish wolfhounds just as we have. Urfer is not asking breeders to stop breeding and showing dogs who carry the bottleneck genes. That would do nothing to remedy the problem. It's Urfer's hope that those breeders who can will begin to set aside dogs who are in no way related to the "bottleneck" hounds as breeding stock for a gene pool reserve. He urges anyone with a non-bottleneck female to avoid breeding her to a bottleneck male or using bottleneck frozen semen to create a litter with her. He operates a [website](#) to help breeders identify non-bottleneck hounds for creating that genetic reserve.

Let me stress up front that I'm in no way opposed to breeding purebreds. I operate a site dedicated solely to a single purebred dog, the Irish wolfhound. I'm head-over-heels in love with them.

But anyone who belongs to any of the several Irish wolfhound groups on Facebook has seen it, an endless parade of beloved hounds dying every day, some as young as one or two.

Osteosarcoma. Bloat. Heart problems... This is the bloodline that inspired Irish myths, that sparked wars, that won the enthusiastic praise of Romans, Vikings and Europe's kings. It's been handed to us as a gift from the ages. The future of this ancient hound is solely in the hands of breeders today.

## **The Picture Slowly Emerges**

Dr. Silvan Urfer did not suddenly arrive at the conclusion that wolfhounds are in danger from a thin gene pool. The Swiss veterinarian and population geneticist spent years pouring over past studies of Irish wolfhound longevity and pedigree databases and stud books. He's not only an expert on the canine genetics, he's an Irish wolfhound owner and enthusiast as well.

In his 2007 doctoral dissertation — an exhaustive look Irish wolfhound longevity — Urfer began to home in on the problem of popular sires accounting for sizable chunks of the wolfhound gene pool. He looked at the pedigrees of 50,822 Irish wolfhounds born between 1862 and 2005. He noted that in 1965, the population of the Irish wolfhound began to grow exponentially. The gene pool did not. The same gene set was being copied over and over in a growing number of dogs.

Male fertility for the Irish wolfhound also dropped below the average level for other breeds during between 1960 and 1993. His 2007 study also found that during that 30-year period, the average lifespan of the Irish wolfhound had dropped by a year and a half.

## **A Shift In The Style of Breeding**

The 1960s, when wolfhound population began to skyrocket, was also a time of major change in how wolfhounds were produced. Prior to that decade, a few large and long-established kennels in the U.S. and the U.K. slowly developed their own distinct line of Irish wolfhounds. Each kennel was it's own large pool of breeding stock. The goal was producing wolfhounds who fit the kennel's ideals, not in placing them in homes.



But after that watershed decade, smaller kennels with smaller breeding stock came to the fore. So did the reliance on popular sires, show dogs who'd done well in the ring but weren't always necessarily the best breeding stock genetically. It further limited the gene pool as the old lines dropped out and the genes of fewer popular show dogs began to dominate the breed. Genetic diversity fell.

### **The Latest Bottleneck**

Urfer continued tracking Irish wolfhound pedigrees and discovered that the popular sire show dog trend had led to the genes of a handful of dogs had come to dominate the breed gene pool to the extent that it's hard to find an Irish wolfhound today who's not related to them.

The bottleneck had begun to develop in the early 1990s when the shipment of frozen semen had become popular, thus spreading the genes of just a handful of popular sires around the globe. The dogs not only produced other winning show dogs, many in their line were long-lived and some breeders today still swear them. It's easy to understand why they were in demand. They sired thousands of direct descendants. And *their* offspring continued the trend exponentially.

### **Why Are More Not Concerned?**

There are more Irish wolfhounds today than ever. How could there be a problem? Let's be clear, there are no villains here, just breeders who want to use proven champion DNA to improve their lines. Any good breeder wants that. Before Urfer's analysis, it would have been difficult for any single breeder to realize the dimensions of the problem. The standard pedigree form goes

back just five generations, but the popular sires responsible for the bottleneck may be back as far as ten generations in the pedigree.

And his private study makes no direct link between genetic disease and the bottleneck situation. Given the complexity of population genetics, Urger has not yet conclusively established that link specifically for Irish wolfhounds. Most breeders have shrugged off his findings.

### **The Danger**

But what happens when a gene pool becomes too narrow has been well-established with other breeds and species. Genetic mutations are frequent in the reproductive process. Glitches happen. Most of us has up to 10 genetic mutations in our own DNA. They lurk in the background with no harm. Nature protects us from the mutations by giving each parent a copy of every gene in our DNA. If one has the mutation, the healthy DNA of the other cancels it out. Unless the two parents are related. Then, it activates, sometimes with little immediate effect, sometimes as a disease. When inbreeding continues over multiple generations, the mutations pile up in each generation of offspring. Genetic diseases become more prevalent until the breed itself is threatened. Populations drop along with fertility, more and more offspring are born sick or crippled and the breed eventually dies off.

### **The Problem Is Getting Worse**

Since Urfer's 2012 revelations, the inbreeding has grown worse. At the time, it was more of a problem in the U.K. and Europe, but as more and more breeders remained unaware of the

bottleneck or chose to ignore it, bottleneck hounds have been used ever-more increasingly in the United States and the gene pool here has narrowed dramatically as well.

So, the question now is: Will breeders embrace Urfer's solution and — those with the resources — begin setting aside a genetic reserve of non-bottleneck hounds? Or will the inbreeding continue until the inevitable results are out of control and the breeding stock is too uniform to offer a genetic rescue?

Next, we'll look at what you can do about this depressing scenario.