FÖDS ACADEMY

Be Your Dog's Best Friend – Certificate Course

Module 1 – Section 1

From Wolf to Dog

When one looks at a picture of a wolf, it is hard to believe that this wild and dangerous animal (even in today's world and including wolf hybrids in our view) has progressed to the extent, that it is commonly known as 'man's best friend' and an integral part of our families. How on earth did this happen?

Let's look at the dog's ancient ancestor

It was believed that all dogs descended from a single ancestor, which was the grey wolf (canis lupis). However, it turns out that it may not have evolved from the grey wolf after all, at least not the kind of grey wolf that exists today. In a study which appeared in an issue of PLOS Genetics(i), it suggests that both dogs and grey wolves share a common ancestor to one of an extinct wolf species and may even be related to the Taimyr wolf.

Research, undertaken by John Novembre, associate professor in the Department of Human Genetics at the University of Chicago, supports this view, and based on their analysis, the team concluded that dogs and wolves parted evolutionary paths sometime between 9000 and 24000 years ago. What he found of particular interest, is that based on three dog genomes used in the research, formed a sister group to the wolves, rather than clustering under one of them.

Findings suggests that dogs share a common ancestor with wolves, rather than having descended from them as is the common belief. Novembre, also says "that dog domestication is more complex than we originally thought".

What is interesting, especially based on the above, is that in 2017, it was confirmed that the New Guinea highland wild dog, which was thought to be extinct, is not only alive, but thriving in New Guinea. According to the NGHWDF (ii), (New Guinea Highland Wild Dog Foundation) the New Guinea highland dog is both the rarest, and oldest living canid in the world today. The organization actually refers to the breed as a "living fossil", due to its special position as a missing link species situated between the first early canids and the modern domestic dog. Here is a link to the article (iii)

We do think that due to the popularity of dogs resulting in the multi-billion industry associated with this, it will be much easier for researchers to obtain funding to explore these new ideas, as well as other aspects of the canine world, which will expand our knowledge to better understand our beloved canine companions. To read more about the work being done, and other scientific research on dogs, do visit the PLOS Genetic website (iv), the research in this link is fascinating.

That takes us onto the next question:-

How did the domestication from wolf to dog occur?

There are multiple theories as to where and how dogs were first domesticated and became our companions. The most common theories are:

Scavenging wolves became hunting companions - Wolves are intelligent beings and could have figured out that following hunting parties resulted in easy food. The research by John Novembre and his team supports this theory. It could be speculated that a mutually beneficial relationship may have developed between hunters and wolves where wolves may have surrounded and brought down injured prey, and these combined hunting techniques led to a closer association between humans and wolves, eventually resulting in their domestication.

Humans raising wolf pups - As wolves moved in closer to human settlements due to the benefits of free food, and the benefits to the humans of having the wolves in the area for protection, humans may have taken a pup away from the den, with the view of incorporating it more into the human social group. It was found that the wolf cubs could bond with humans, and more and more of this incorporation may have occurred with humans breeding to preserve both physical characteristics, and personality traits that suited the humans.

Natural Evolution - This hypothesis of how wolves changed into the dog seems to be logically correct. In a recent study of the wolves that were re-introduced into Yellowstone Park in the US, a researcher named Tim Coulson, from Imperial College London says that "Biologists and people who study wild populations in animals have been noticing over the last decade or so [of studies] that when you change the environment around a species — climate change, introduction of new species, disease epidemics, etc. — you don't just change the size of the population, the number of individuals living there, you often change the characteristics of the animals,"

We may never know which of the above theories are correct, however the research is on-going and the end result is that over thousands of years and selective breeding, we have created a number of unique dog breeds, and continue to do so.

Provided below are a few links of interest that you may want to investigate yourself. There are hundreds more available on the internet but as with all research cross reference and corroborate what you find on the internet to ensure that the information and research is legitimate.

* A talk with the Coppinger's
http://www.workingdogweb.com/coppinger.htm

*Another interesting read is from the link below in Modern Dog Magazine, do read through this, interesting theory.
http://moderndogmagazine.com/articles/how-dogs-were-created/12679

*Well worth a read is this one from Nat Geo – Opinion – We Didn't Domesticate Dogs – They Domesticated Us
https://news.nationalgeographic.com/news/2013/03/130302-dog-domestic-evolution-science-wolf-wolves-human/

(i) – Link to PLOS Genetics to article mentioned
https://journals.plos.org/plosgenetics/article?id=10.1371/journal.pgen.1004016

(ii) Link to NGHWDF
http://www.nghwdf.org/hwds

(iii) Link to article on New Guinea Highland Wild Dog
https://ckcusa.com/blog/2017/april/ancient-dog-believed-to-be-extinct-rediscovered-in-new-guinea/

(iv) Link to PLOS Website
https://www.plos.org/