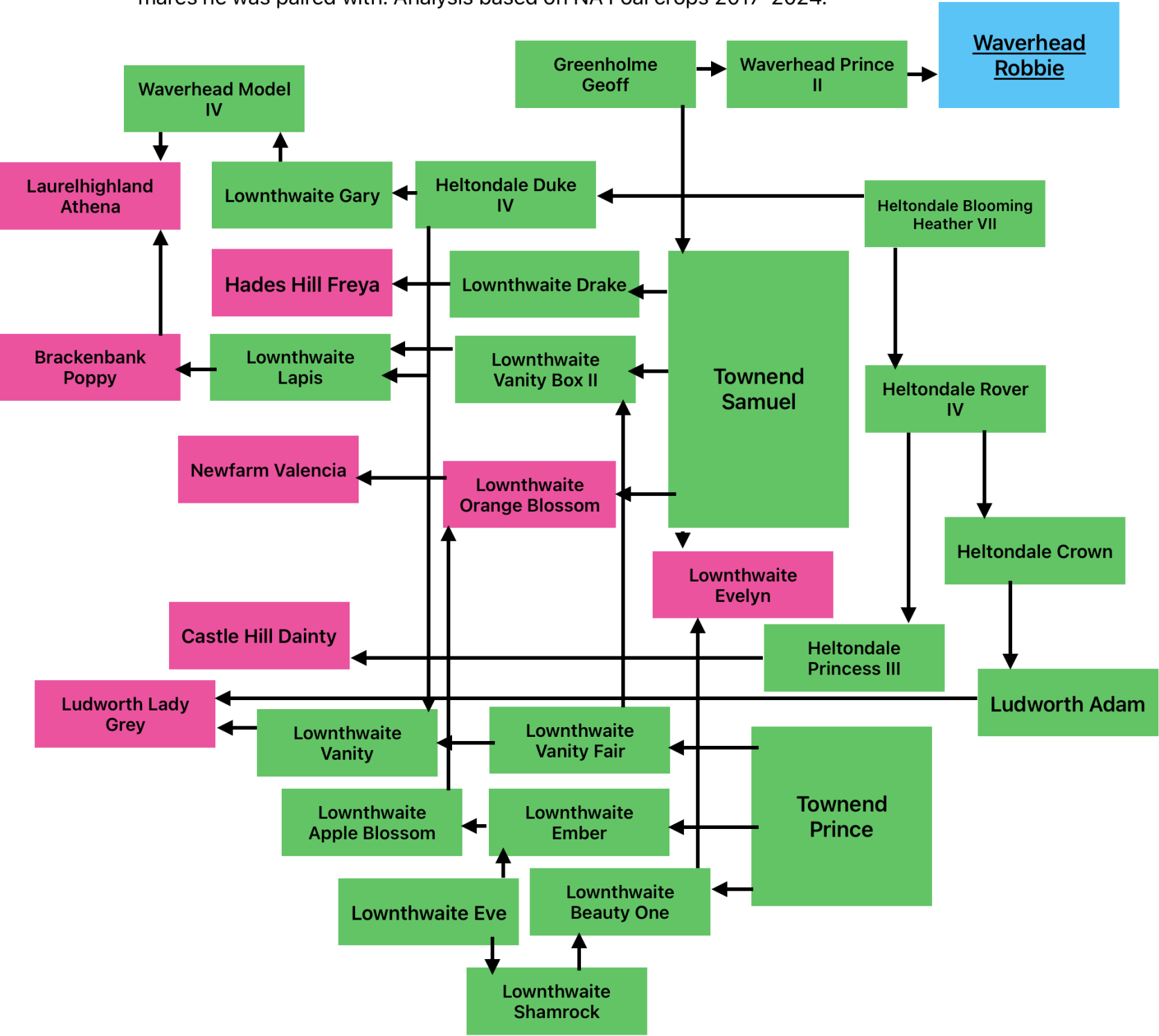


Waverhead Robbie born 1993 by Waverhead Prince II
Blue text - NA producing Stallion, Pink text - NA producing Mare, Green Text - WR in 5th generation.
Bold pink and blue indicates WR progeny in the current breeding pool (2017-2024)
Total Registered Foals: 41, 1996-2009

WR Paired with	Progeny Group In the Breeding Pool Since 2017	Prospect Foals From the Breeding Pool Since 2017
Lownthwaite Orange Blossom (Townend Samuel x Lownthwaite Apple Blossom)	Mustahevonen Rheged's Pippin Drycreek Gertrude Kimberlake Gabriella Drycreek Heidi Royalcrest Ariel Newfarm Midsummers Night Garrighyll Midsummer Melody Deerstones Will-o-the-wisp Grace II Laurelhighland Rose Petal Fellegend Flower Mustahevonen Rheged's Lemon Drop Bo's Gypsy Dreamer Group Total (See Newfarm Valencia)	1 0 0 0 1 0 2 0 2 0 0 0 7 13
Newfarm Valencia (Tarnbeck Lightning x Lownthwaite Orange Blossom)	Broughhill Hadrian's Wall Braeberry Buffalo Bill Fellegend Calafia Braeberry Emma Mae Fellegend Betony Braeberry Magna Carta Braeberry Anne Braeberry Clarabel Fellegend Scarlett Bohemia's Vesna Deerstones Will-o-the-wisp* Group Total	3 1 4 1 2 1 1 2 1 1 0 17
Brackenbank Poppy (Rackwood Prince x Lownthwaite Lapis)	Southmoore Poppet Laurelhighland Emma Group Total (See Laurelhighland Athena)	1 3 4
Laurelhighland Athena (Waverhead Model IV x Brackenbank Poppy)	Laurelhighland Union Jack Laurelhighland Jack of Diamonds Laurelhighland Rapunzel Roxanne Laurelhighland Black Diamond Laurelhighland Tiara Group Total	5 11 0 1 0 2 19
Lownthwaite Evelyn (Townend Samuel x Lownthwaite Beauty One)	Laurelhighland Tango Laurelhighland Dancer Laurelhighland Lyric Laurelhighland Sweet Melody Laurelhighland Mariah Laurelhighland Lindy Dakotafell Ali Group Total	1 1 2 1 1 1 0 7
Ludworth Lady Grey (Ludworth Adam x Lownthwaite Vanity)	Laurelhighland Topaz Laurelhighland Jack of Diamonds* Laurelhighland Sapphire Laurelhighland Crystal Group Total	1 11 0 2 14
Hades Hill Freya (Lownthwaite Drake x Hades Hill Fancy II)	Laurelhighland Treasure Laurelhighland Hope Group Total	3 (2 w/ LH Jack of Diamonds) 1 4
Castle Hill Dainty (Heltondale Bellman V x Heltondale Princess III)	Laurelhighland Diamond Laurelhighland Tiara* Laurelhighland Black Diamond* Group Total	2 2 0 4
Total All	44 Producers out of 200 producers 2017-2024 22%	67 Prospects out of 218 31% (Prospects in multiple mare groups only counted in total one time.)

Waverhead Robbie had 11 offspring contribute to the future with 9 contributing in the last 7 years. The 9 contributors come from WR bred to 8 different mares, represented here in pink squares. The green squares show the foundational connections between the 8 mares as well as a connection WR had to some of the mares he was paired with. Analysis based on NA Foal crops 2017-2024.



Scope and Intention

The above analysis was inspired by a question on Waverhead Robbie’s (WR) influence going forward into the future prospective breeding pool in North America (NA). With the state of Fell pony breeding in NA, given foal crops have averaged 39/year since 2017 produced by a breeding pool of only 200 mares and stallions, every mare/stallion match should consider what bloodlines are collectively being put forth for the future. Substantial inbreeding and line breeding of these ponies is something we inherit from our main breeding stock source. That, combined with very few programs in NA, the distance each program is from another, and the investment involved in any one pony, makes goals for outcrossing towards diversity very challenging. Even though line breeding traditions lend to maintaining type through genetic homozygosity, it comes with risk of homozygosity in traits or mutations that are undesirable. This work looks deeply at what will be available for future breeding. This deep future forecasting looks beyond an individual foal’s outcrossed pedigree. A breeding decision may also need to consider what bloodlines are also being put forth by the other breeders involved.

Summary

The yellow bar of data in the first table answers the first main question, “How influential is the bloodline of a foundation pony in the collective breeding pool?” For Waverhead Rambler (WR), we see 22% of the breeding pool is passing on WR bloodlines. We also see these 44 producers have produced 67 prospects so far, currently 31% of total prospects since 2017. Note: ‘prospects’ entail ponies recorded or known alive and non-castrated.

The second question is, “How many pathways, referring to how many different matchings, exist back to the foundation pony?” For diversity of the prospects, we want to see as many different matches as possible. The first table shows NA has 8 pathways (8 mares matched) to WR. This is on the better side compared to several others in the breeding pool. However, the third question helps us see the level of diversity among the matches.

So the third question is, “How related are the different matches to each other and to the pony they are matched with?” The colored box chart shows how those 8 mares (pink boxes) are related by showing arrows from their common ancestors (green boxes). This chart helps us see a core connection with the majority through a number of Lownthwaite ponies that came from 2 Townend stallions. Even WR himself shares some of the dna from one, Townend Samuel. We can also see 4 of the 8 mares are mother/daughter which is less ideal than if we had 8 very different sets of pedigrees matched with WR.

The fifth final question is, “Should I be strategic in matching (or choosing not to match) a pony that has 1 or more lines to WR?” The yellow bar data in the first table and the data in the box chart gives some indication that we should be considerate and thoughtful in these decisions.

The basis for all data was sourced from an independent analysis of NA Fell pony foal crops 2017-24 by forming reverse pedigrees from the Grassroots database. Given the potential for small margins of error, the data is intended for thought and inspiration to do your own research related to NA Fell pony bloodlines. Questions/clarifications are always welcome.