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Pinpointing the Reed Scottish Paternal Ancestral Genetic Homeland

A Scottish Y-DNA Case Study

www.Scottishorigenes.com



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Introduction

A simple painless commercial ancestral Y chromosome DNA test will potentially provide one with the names of many hundreds of individuals with whom one shares a common male ancestor. But what often perplexes people is how one can match lots of individuals with many different surnames? The answer is quite simple. Approximately 1,000 years ago one's direct medieval male ancestor, the first for example to take the 'Reid' surname was living near others with whom he was related but who took other surnames like Paterson, Grant, and Urquhart. Given that hundreds of years have passed since paternally inherited surnames became common, there will be many descendants of those individuals some of whom will today undergo commercial ancestral Y-DNA testing. Hence the surnames of one's medieval ancestor's neighbours will be revealed in today's Y-DNA test results.

Early 19th century census data demonstrates that Scottish surnames could still be found concentrated in the areas from which they originated. One can therefore use census data to determine the origin of the surnames that appear in one's Y-DNA results, identifying an area common to all, and reveal ones **'Paternal Ancestral Genetic Homeland.'** The genetic homeland is the small area (usually within a 5-mile radius) where one's ancestors lived for hundreds if not thousands of years. It is the area where one's ancestor first inherited his surname surrounded by relatives who inherited others. It is the area where one's ancestors left their mark in its placenames, its history, and in the DNA of its current inhabitants. Since modern science can pinpoint a paternal ancestral genetic homeland, it can also be used to confirm it by DNA testing individuals from the pinpointed area.

Notes of caution!

1. Scientific research has shown that each of the estimated 1,500 unique Irish surnames had a single founding ancestor, which is an estimated 1,500 Adams from whom anyone with Irish paternal ancestry (and with one of those unique surnames) can trace direct descent. But science has demonstrated that only 50% of individuals with a unique Irish surname will be related to the surnames founding ancestor, the other 50% of people will have an association that has arisen due to a 'non-paternal event,' usually a result of adoptions or maternal transfer of the surname. Since Scotland adopted a similar clan-based society, these scientific findings can be applied to Scotland and people with Scottish ancestry.
2. Often people are looking for their DNA results to trace back to a specific area. One must remember that the results typically reflect one's ancestor's neighbours from around 1,000 years ago. As a result, if one's Scottish ancestor was descended from an Anglo-Saxon settler, Viking raider, or 12th Century Norman one's DNA results may reflect earlier English, Welsh, French, and Scandinavian origin. One must approach this process with an open mind!

Interpreting the Y-DNA test results

To pinpoint a paternal ancestral genetic homeland, one must first identify the surnames that appear as one's closest genetic matches upon commercial ancestral Y-DNA testing and/or identify one's terminal Y-DNA SNP mutation. Those surnames, particularly those that recur throughout the Y-DNA results, will typically reflect the surnames of one's ancestral neighbours. The test subject's closest genetic surname matches as revealed by commercial ancestral Y-DNA STR and SNP testing are detailed in **Figures 1, 2, and 3**.

111 Markers (9) 67 Markers (878) 37 Markers (1116) 25 Markers (4158) 12 Markers (3588) Filter						Sort by	Export CSV
	Patterson	Autosomal Transfer	BIG Y-700 Y-DNA111				
Markers Tested 1 to 700	Genetic Distance 10 steps Link on Family Tree	Big Y STR Differences 12 of 666	Y Haplogroup R-FTD12455	Paternal Country of Origin Scotland	Paternal Earliest Known Ancestor John Paterson, b. abt 1790		Match date: April 20 2026
	McIntosh	Family Finder	BIG Y-700 Y-DNA111				
Markers Tested 1 to 700	Genetic Distance 10 steps Link on Family Tree	Big Y STR Differences 12 of 661	Y Haplogroup R-FTB70177	Paternal Country of Origin Scotland	Paternal Earliest Known Ancestor Lachlan 'Mor' Mackintosh, b. 1543 and ...		Match date: April 20 2026
	Moore	BIG Y-700 Y-DNA111					
Markers Tested 1 to 700	Genetic Distance 10 steps Link on Family Tree	Big Y STR Differences 13 of 667	Y Haplogroup R-FT406056	Paternal Country of Origin Ireland	Paternal Earliest Known Ancestor John Moor(e), b. abt. 1707, imm. to Ma...		Match date: April 20 2026
	McKinnon	BIG Y-700					
Markers Tested 1 to 700	Genetic Distance 10 steps Link on Family Tree	Big Y STR Differences 15 of 662	Y Haplogroup R-Z17615	Paternal Country of Origin Unknown Origin	Paternal Earliest Known Ancestor Not Available		Match date: April 20 2026
	Urquhart	Family Finder	MTFULL SEQUENCE BIG Y-500				
Markers Tested 1 to 500	Genetic Distance 10 steps Link on Family Tree	Big Y STR Differences 10 of 612	Y Haplogroup R-BY102476	Paternal Country of Origin Scotland	Paternal Earliest Known Ancestor Alexander Urquhart born 1792		Match date: April 20 2026
	Simpson	MTFULL SEQUENCE BIG Y-500					
Markers Tested 1 to 500	Genetic Distance 10 steps Link on Family Tree	Big Y STR Differences 15 of 567	Y Haplogroup R-BY115716	Paternal Country of Origin Scotland	Paternal Earliest Known Ancestor Archibald Simpson, b 1735- Rothes,...		Match date: April 20 2026
	Atkinson	Family Finder	Y-DNA111				
Markers Tested 1 to 111	Genetic Distance 10 steps Link on Family Tree	Big Y STR Differences Not Available	Y Haplogroup R-S764	Paternal Country of Origin England	Paternal Earliest Known Ancestor Robert Aytoun Atkinson, b. 1801 and d...		Match date: April 20 2026
	Frazier	Family Finder	MTFULL SEQUENCE Y-DNA111				
Markers Tested 1 to 111	Genetic Distance 10 steps Link on Family Tree	Big Y STR Differences Not Available	Y Haplogroup R-S744	Paternal Country of Origin Unknown Origin	Paternal Earliest Known Ancestor Not Available		Match date: April 20 2026
	Shaw	Family Finder	Y-DNA111				
Markers Tested 1 to 111	Genetic Distance 10 steps Link on Family Tree	Big Y STR Differences Not Available	Y Haplogroup R-S764	Paternal Country of Origin Unknown Origin	Paternal Earliest Known Ancestor James Shaw		Match date: April 20 2026

Figure 1: Mr Reed's 111 Y-DNA STR marker revealed genetic surname matches. The more Y-DNA STR markers two males share the more recent their shared paternal ancestor once lived. The test subject's closest Y-DNA STR revealed genetic surname matches are **NOT RANDOM**; his closest paternal genetic relatives have exclusively Scottish surnames (blue arrows) and include individuals with earliest recorded links with Scotland (blue boxes).

Closest Y-DNA SNP Matches		
Surname	Min. SNP Diff	Frequency
Patterson	15	2
McDonald	17	18
Fraser/Frazier/Frasher	17	3
McKay/Mckhé	18	3
Baldrige	18	2
Urquhart	18	2
Ferguson	20	3
Grant	20	3
Griffin	20	3
Hosie	20	3
Kelly/Kelley	20	2
Livingston	20	2
McLean	20	2
Davis	20	1
Keyser	20	1
Buchanan/Bohannon	21	9
Moore	21	5
McRae	22	9

Figure 2: Snapshot of Mr Reed's closest Y-DNA SNP matches. Commercial Y-DNA SNP testing revealed 278 paternal genetic relatives, the closest of which are detailed. Some of these genetic relatives have surnames that recur among the results. The test subject's closest Y-DNA SNP revealed paternal genetic relatives are dominated by Scottish surnames. Highlighted font indicates each surnames associated ethnicity: **Scottish**, **Scottish-associated**, **English**, **Mainland European**.

Upon commercial ancestral Y-DNA testing, the test subject was not a close match to other males named Reed (Reid), see **Figures 1** and **2**. This indicates that the test subject may not be directly descended from his surnames founding ancestor (a 'Reed/Reid-Adam') and that his surname was acquired in more recent times. However, Reid is a very common surname, which means that there were potentially many founding Reid-Adams living an estimated 1,000 years ago when paternally inherited surnames became common. It may simply be, that others with whom the test subject shares a common founding Reid-Adam have simply yet to Y-DNA test. The complete dominance of Scottish-associated surnames among the test subject's Y-DNA results indicates that his paternal ancestors originated within Scotland, see **Figures 1** and **2**.

The STRs examined in the Y-DNA111 test are short repetitive sequences of DNA that can be amplified or deleted with each generation. In contrast, SNPs are far more permanent mutations. SNP testing offers a more accurate glimpse of the precise chronological development of surnames among related males. Block display of the test subject's Y-DNA SNP results reveals that males named Reed, Paterson, Grant, and Urquhart share a common founding Scottish male ancestor in whom arose the

R-FT190695 mutation which lies on a branch of the Scottish-associated R-L1065 Haplogroup tree, see **Figure 3**.

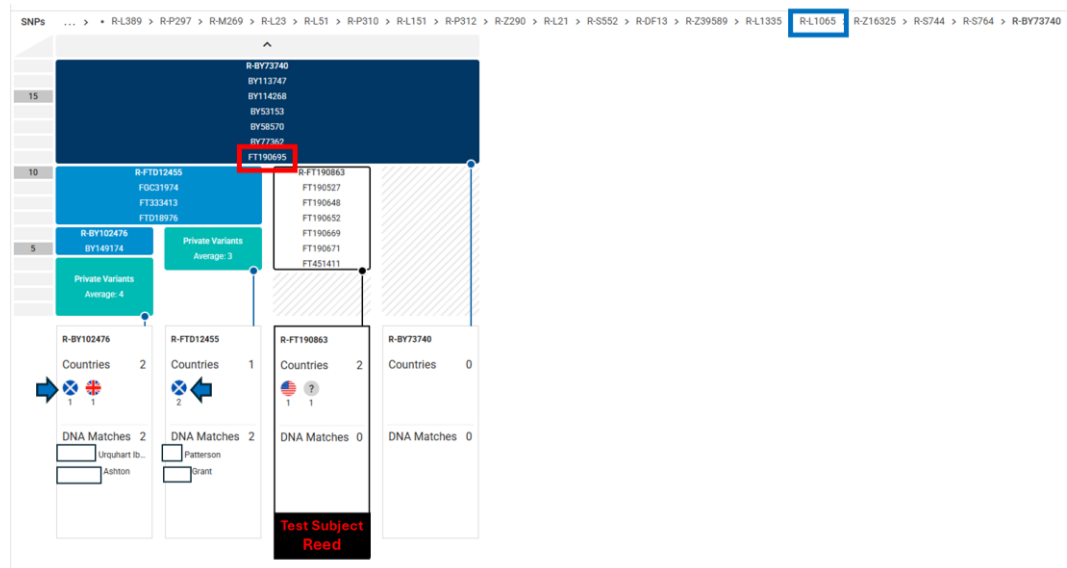


Figure 3: Block display of Mr Reed's terminal Y-DNA SNP matches. While the STRs examined in the Y-DNA111 test are prone to replication or deletion with each generation, SNPs are far more permanent mutations. SNP testing offers a more accurate glimpse of the development of surnames among a group of related males. Block display reveals that the Reed, Paterson, Grant, and Urquhart surnames arose among Scottish males (blue arrows) who share a common Scottish paternal ancestor in whom arose the R-FT190695 mutation (red box). Block display reveals that these Reids lie on a branch of the Scottish-associated R-L1065 Haplogroup tree (blue box).

Scottish Reid

Reed/Reid is a common Scottish-associated surname. Since surnames arose in an agrarian society, this means that farmers in early census data could be found concentrated in the area where their surname first appeared or in the area where one's ancestors first settled. One can therefore examine the distribution of farmers named Reid/Reed to determine how many Scottish 'Reid' Clans (or Families) existed. Early census data reveals at least 15 geographically distinct Scottish Reid/Reed farming communities found throughout Scotland; indicating the existence of potentially 15 genetically distinct clans, one of which the test subject may be descended from, see **Figure 4**. It is the test subject's genetic surname matches revealed by Y-DNA testing, as a snapshot of his Scottish medieval male ancestors' neighbours which will reveal where his Scottish founding Reid/Reid paternal ancestor lived.

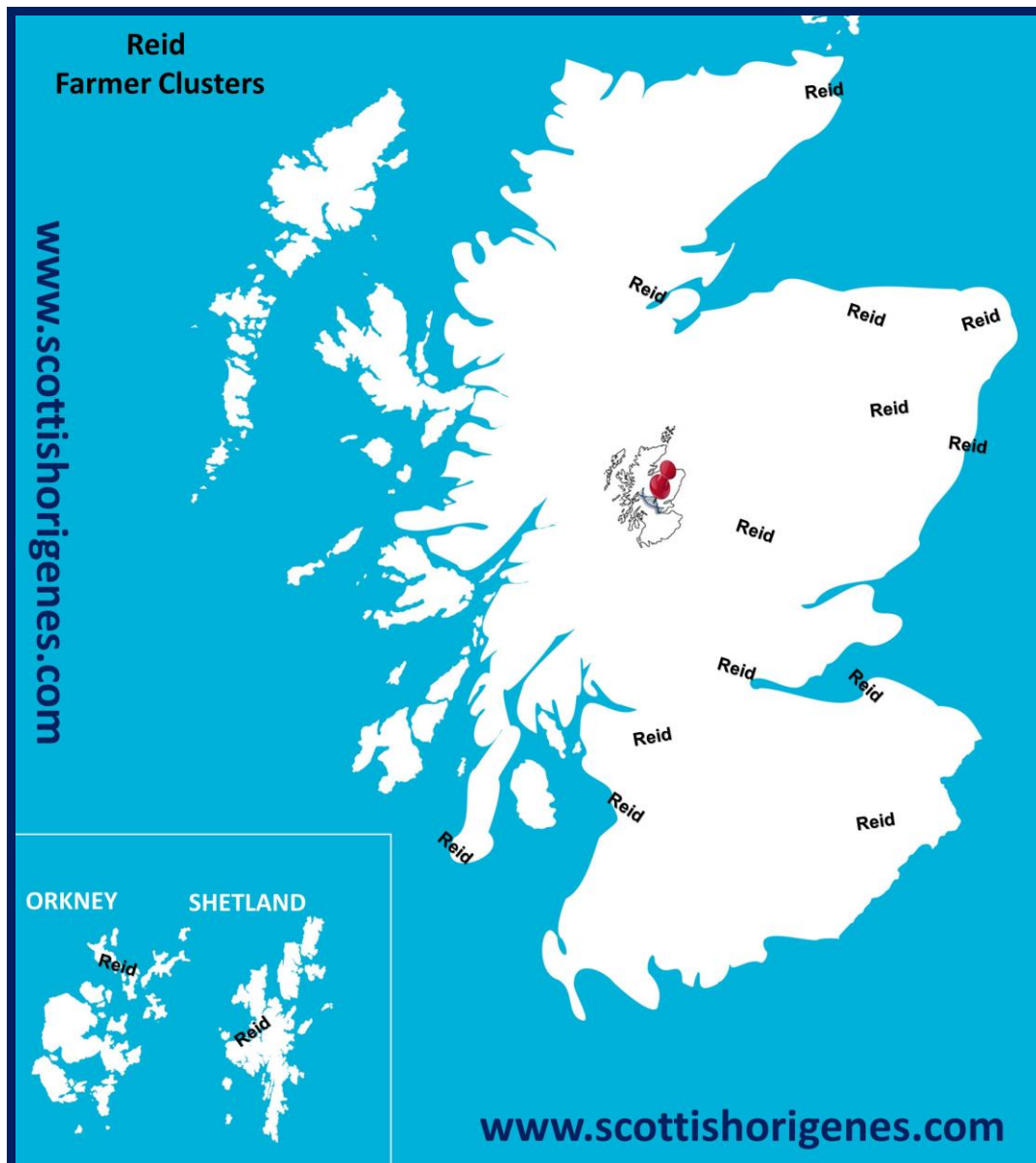


Figure 4: The Scottish Reid/Reed farming community. Distribution mapping of farmers named Reid/Reed reveals 15 distinct groups found in Scotland. Each surname has been placed on the map in the area where farmers with that surname concentrate in early census data. The most common spelling is detailed in each location. Surnames are positioned as they appear on the Scottish Origenes Surnames map, a digital copy of which is FREE to view online at www.origenesmaps.com

A Paternal Ancestral Origin within Northern Scotland

The method of using genetic surname matches as revealed by commercial ancestral Y-DNA testing to pinpoint a paternal ancestral genetic homeland works by exploiting the link between the Y chromosome, surname and land, which are typically passed from father to son through the generations. In the absence of a link to the land the process becomes more challenging. The link with the land is greatest among the farming community and since farmers in Scotland can still be found farming the land where their ancestor lived when he first inherited his surname, or where one's ancestor first settled within Scotland, one can plot where farmers with the surnames that appear in one's Y-DNA results cluster and identify an area common to all. This means that upon Y-DNA testing a Reid from Caithness will be a Y-DNA genetic match

to males with surnames like Abrach, MacIntosh, and Levach; surnames associated with the far north of Scotland. In contrast, upon Y-DNA testing a Reid from Roxburghshire will be a Y-DNA match to individuals with surnames like Armstrong, Kerr, and Hume; surnames associated with Southern Scotland. Hence, it is Mr Reed's closest Scottish-associated Y-DNA genetic surname matches which will reveal where his paternal ancestors originated.

Commercial ancestral Y-DNA testing reveal that the Reid, Fraser, McDonald, McKay, Paterson, and Urquhart surnames arose among related Scottish males living in a specific part of Scotland, see **Figure 2**. Distribution mapping of Scottish farmers named Reid, Fraser, McDonald, McKay, Paterson, and Urquhart reveal that they occur in closest proximity to one another within Northern Scotland, see **Figure 5**. The Scottish Origenes Surnames and DNA Map details where farmers with each Scottish surname concentrated in early census data. An examination of the area surrounding the Black Isle in Northern Scotland as it appears on the Scottish Origenes Surnames Map reveals Reid farmers surrounded by surnames that appear among the test subject's Y-DNA revealed paternal genetic relatives, see **Figure 1, 2, 3, and 6**.

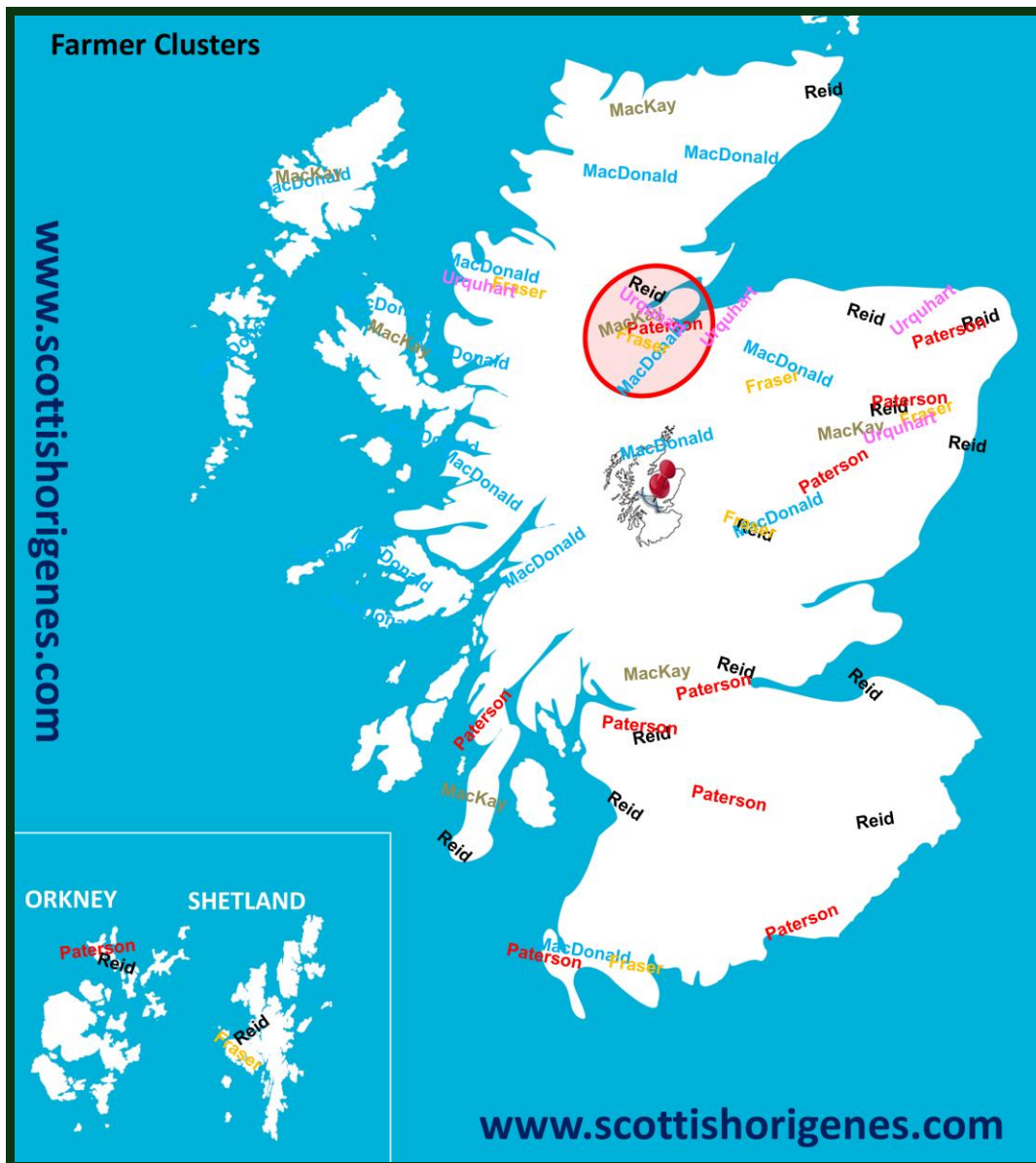
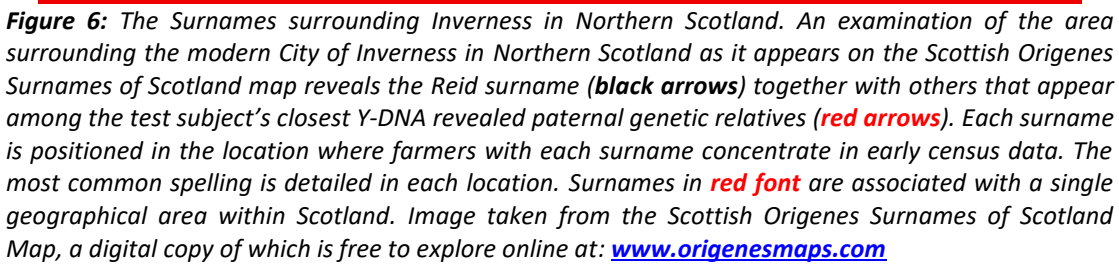


Figure 5: Overlay mapping reveals a paternal origin within Northern Scotland. Y-DNA testing revealed that the Reid, Fraser, McDonald, McKay, Paterson, and Urquhart surnames arose among related males living in Scotland. Overlay mapping reveals that the Reid, Fraser, McDonald, McKay, Paterson, and Urquhart farming communities occur in closest proximity to one another within Northern Scotland (**shaded red**). Each surname has been placed on the map in the area where farmers with that surname concentrate in early census data. The most common spelling is detailed in each location. Surnames are positioned as they appear on the Scottish Origenes Surnames map, a digital copy of which is free to explore online at www.origenesmaps.com



By examining the locations of the castles and towerhouses that are historically associated with a particular surname, it reveals that Medieval Scotland was a patchwork of territories dominated by notable clans and families. Research at Scottish Origenes has revealed that almost everyone with Scottish paternal ancestry will be genetically related to at least one of these prominent clans or families that once ruled over one's paternal ancestral genetic homeland. An examination of the castles and towerhouses surrounding Inverness in Northern Scotland reveals clans and families that claim Gaelic and Norman origin, see **Figure 7**. The clan map reveals that several of the prominent clans and families that dominated the area surrounding the Black Isle appear among the test subject's Y-DNA revealed paternal genetic relatives, see **Figures 2 and 7**.

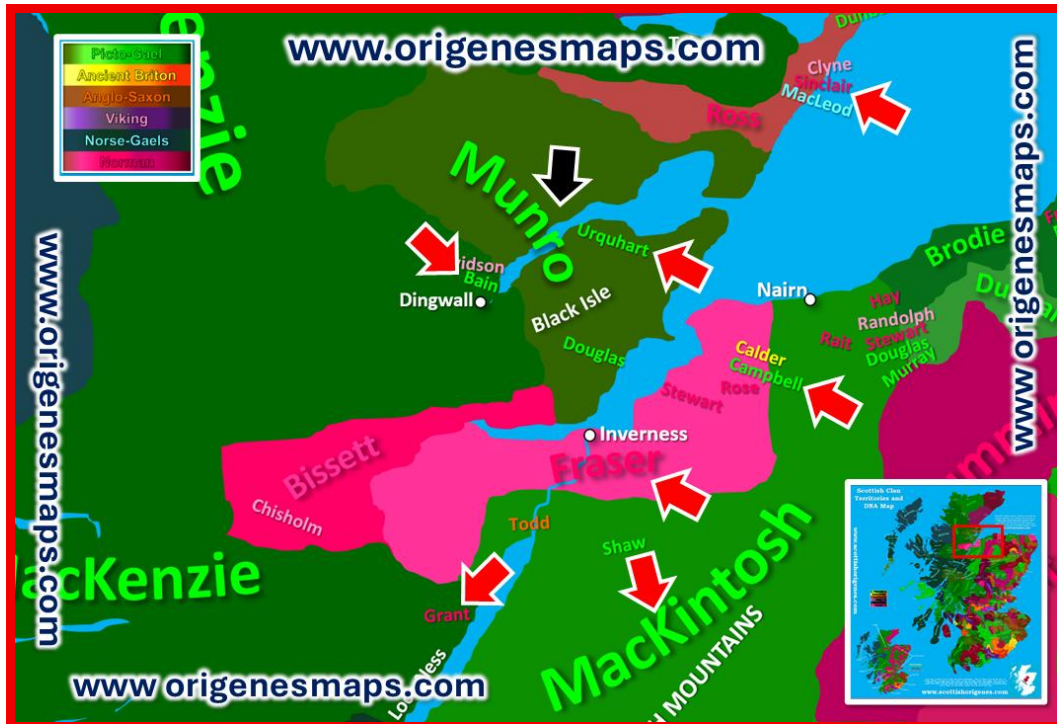


Figure 7: The principal Medieval Clans and Families surrounding Inverness in Northern Scotland. An examination of the area surrounding the Black Isle in Northern Scotland as it appears on the clan territories map reveals an area dominated by clans and families that claim Scottish Gael and Norman origin. The clan map reveals that the test subject's Reid (**black arrow**) lived near lands dominated by several clans and families (**red arrow**) that appear among his paternal genetic relatives. The Scottish Origenes clan map was reconstructed based on the location of castles and towerhouses and their historically associated clan or family. Image taken from the Scottish Origenes Clan Territories of Scotland Map, a digital copy of which is free to explore online at: www.origenesmaps.com

Mr Reid's Scottish Paternal Ancestral Genetic Homeland

Early census data reveals farmers named Reid concentrated in the area surrounding the Cromarty Firth, and it is there that the test subject's paternal ancestral genetic homeland is to be found, see **Figure 8**. It was in that area that the test subject's direct male ancestor who carried the R-BY73740 mutation (dated to 1050AD) lived and who took the 'Reid' surname surrounded by paternal genetic relatives who took other surnames like Paterson, Grant, and Urquhart among many others. Often when one's ancestors have lived in an area for a very long time, they leave evidence of their ancestral links with that location in the castles and placenames one finds there. Although an examination of the surrounding area failed to reveal any Reid-associated placenames or monuments, his paternal ancestors will left evidence of their long ancestral links with this area in the history of this location, but also in the DNA of the Reids who still live and farm there.

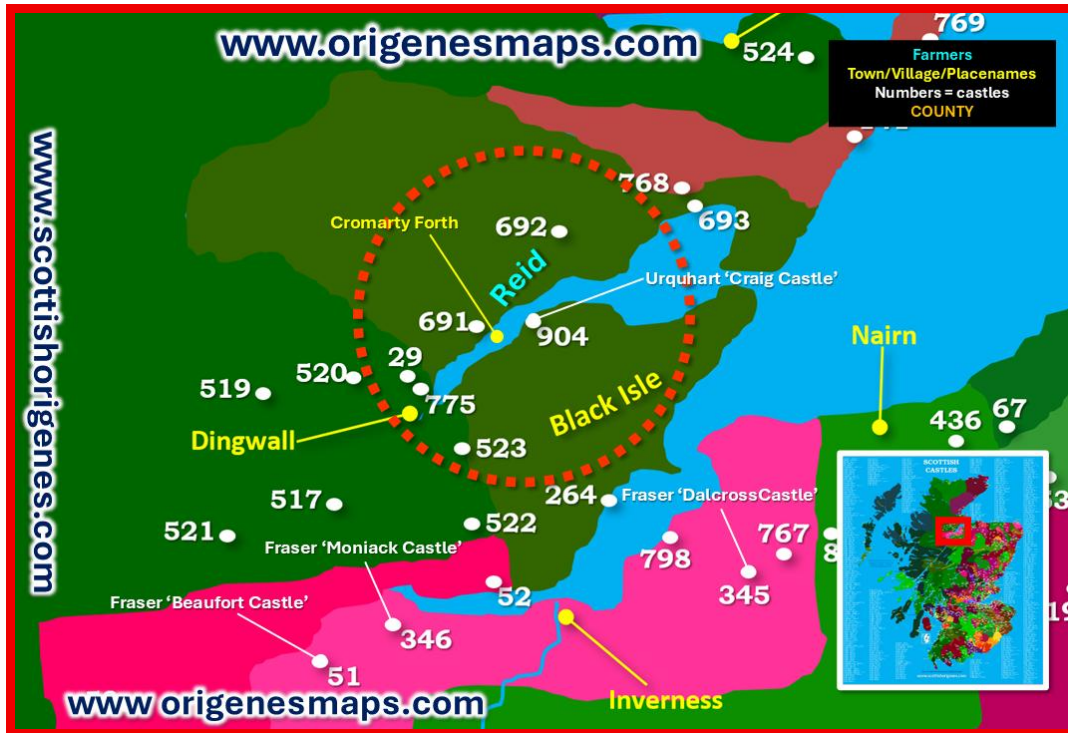
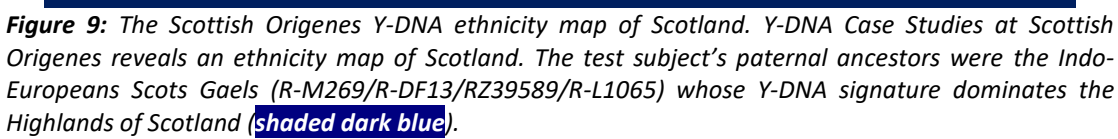


Figure 8: Mr Reed's Scottish Paternal Ancestral Genetic Homeland. Reid farmers in early census data concentrate in the farmland that surrounds Cromarty Firth, and it is there that the test subject's Paternal Ancestral Genetic Homeland (orange broken circle) is to be found. It was there that his paternal ancestor lived when paternally inherited surnames first appeared in Scotland an estimated 1,000 years ago and where his paternal ancestor first took the Reid surname. His paternal ancestor took the Reid surname surrounded by relatives who inherited other surnames like Paterson, Grant, and Urquhart. The Reids of Cromarty firth will have left evidence of their long ancestral links with this area in its history, but also in the DNA of the current inhabitants. Image taken from the Scottish Origenes Castles of Scotland Map, a digital copy of which is free to explore online at: www.origenesmaps.com

Indo-European Scottish Gaels

Commercial ancestral Y-DNA testing and research at Scottish Origenes has revealed that the modern Scottish males are a mixed bunch descended from Neolithic farmers, Indo-European Ancient Britons and Gaels, Romans, Anglo-Saxons, Vikings, and Normans, see **Figure 9**. The test subject's branch on the R-M269/R-Z39589/R-L1065 Haplogroup tree indicate that his paternal ancestors were the Indo-European (R-M269) Highland (R-L1065) Gaels, see **Figure 10**. The test subject is descended from the Indo-Europeans who began arriving in Britain from Continental Europe in around 2500BC, an arrival that would correspond to a 90% population replacement of the Neolithic inhabitants. His paternal ancestors would settle in the Highlands of Perthshire before spreading north into the borderlands of Invernesshire and Ross-shire and Cromartyshire. A comparison of the test subject's Y-DNA SNPs with an Ancient DNA database reveal that he matches closest a set of human remains recovered from a Viking settlement in the Faroe Islands, which are in fact the remains of a Norse Gael from Northwest Scotland, see **Figure 11**.



'Reed' Y-DNA Case Study July 2026

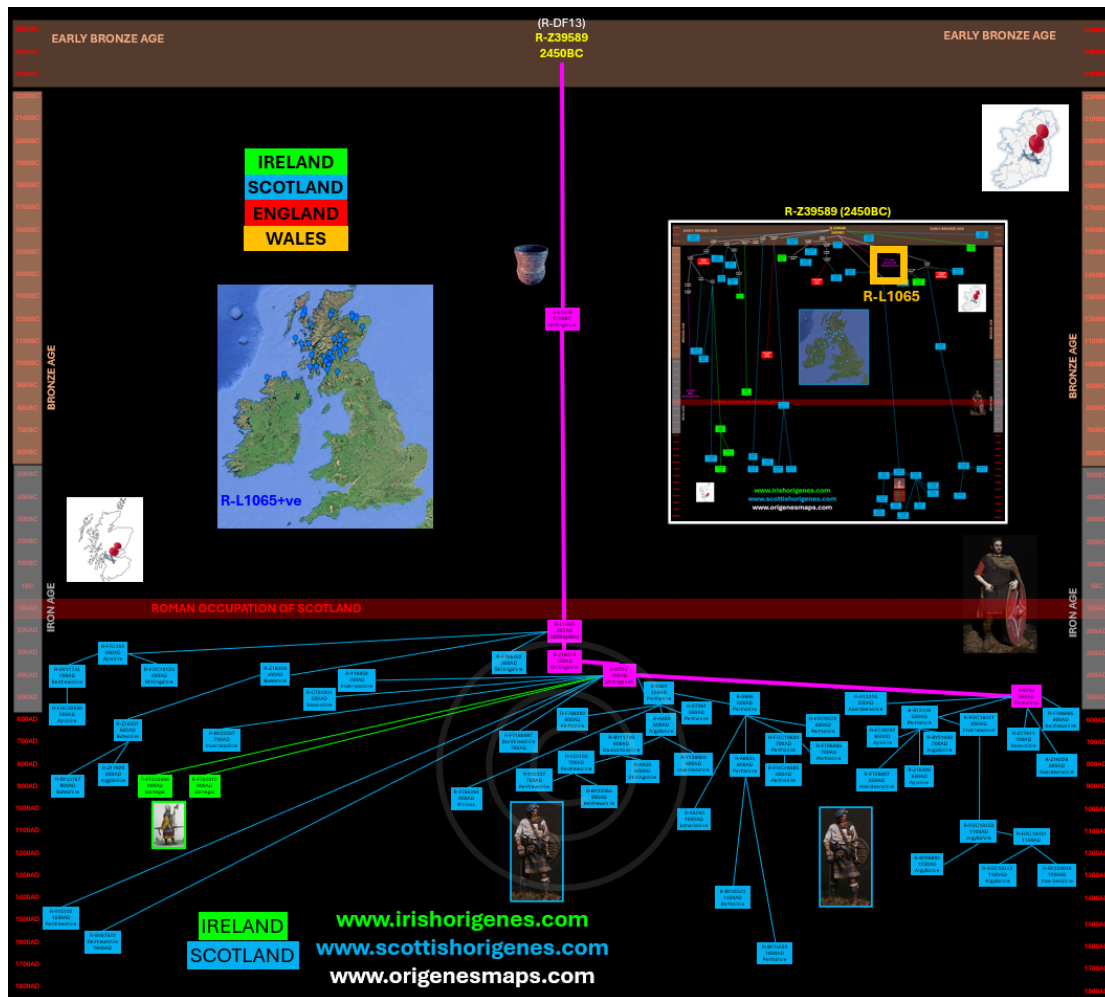


Figure 10: Mr Reed's R-FT190695 branch (violet line) on the Updated R-M269/R-DF13/R-Z39589/R-L1065 Haplogroup tree. The original R-L1065 Haplogroup tree is FREE to explore online at www.origenesmaps.com

Object-ID	FTDNA-Y-Haplotree	Date	Mean	Simplified_Culture	Location	SiteID	Country
VK386	R-M207>M173>M343>L754>L389>P297>M269>L23>L51>P310>L151>P312>Z290>L21>DF13>Z39589>L1335>L1065>Z16325>S744>S691>S695	800-1100AD	950	Viking	Nor. South	Oppland	Norway
VK242	R-M207>M173>M343>L754>L389>P297>M269>L23>L51>P310>L151>P312>Z290>L21>DF13>Z39589>L1335>L1065>Z16325>S744> S764	1500-1700AD	1600	Nordic_MA	Faroes	Church2	Faroes
Reed	R-M207>M173>M343>L754>L389>P297>M269>L23>L51>P310>L151>P312>Z290>L21>DF13>Z39589>L1335>L1065>Z16325>S744> S764 >73740						
Test Subject							

Figure 11: Alignment of Mr Reed's commercial ancestral Y-DNA SNP mutations with R-L1065 Ancient Remains. Alignment of Y-DNA SNP mutations reveals that Mr Reed matches closest a set of remains from a Viking settlement in the Faroe Islands, which are from of a Norse Gael from Northwest Scotland which is dated to around 1600AD and with whom the test subject shares the R-S764 mutation (red arrow) which dates to 500AD. Ancient DNA sample data available at <https://indoeuropean.eu/>

How to confirm the Reed Paternal Genetic Homeland

One must keep in mind that this is a scientific DNA approach to identifying an origin.

As such, the connection to an identified area can be confirmed by Y-DNA testing males with the surname of interest from the identified location. The origin within Northern Scotland can be confirmed by Y-DNA testing males named Reid from the farmland surrounding Cromarty Firth.