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Pinpointing the Ellison Scottish Paternal Ancestral Genetic Homeland

A Scottish Case Study

www.Scottishorigenes.com



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7th May 2022

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. Roughly 1,000 years ago one's direct medieval male ancestor, the first for example to take the 'Allison' surname was living near others with whom he was related but who took other surnames like Struthers, and Mason. Given that 1,000 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 possibly Scandinavian origin. One must approach this process with an open mind!

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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. Those surnames, particularly those that recur among one’s genetic relatives, will typically reflect the surnames of one’s ancestral neighbours. The test subject’s closest and most frequent genetic surname matches as revealed by commercial ancestral Y-DNA STR and SNP testing are detailed in **Figures 1, 2 and 3**.

111 Y-DNA STR Matches							
Surname	Match Date	Markers Tested	Genetic Distance	Big Y STR Differences	Y-DNA Haplogroup	Paternal Country of Origin	Earliest Known Ancestor
Allison	May 17 2018	1 to 700	2	5 of 623	R-FTS8262	Unknown Origin	Theophilus Allison, b. 1747 and d. 1815
Allison	March 12 2020	1 to 700	3	4 of 587	R-FTS8262	Unknown Origin	John Allison (1753 - 1815) - Find A Grave Memorial
Allison	September 13 2021	1 to 111	4	Not Available	R-M269	Unknown Origin	
Allison	April 24 2018	1 to 700	5	7 of 661	R-BY41377	Northern Ireland	Eli Allison b. 1803, PA
Allison	July 25 2018	1 to 111	6	Not Available	R-M269	Unknown Origin	
Allison	January 09 2020	1 to 111	6	Not Available	R-M269	United States	Thomas Allison, b. 1722 and d. 1794
Dr. Thomas McWane Allison M.D.	April 24 2018	1 to 700	8	4 of 636	R-FTS8262	United States	Mr. Robert Allison, b. 1750 and d. 1804
Strother	February 23 2022	1 to 700	8	13 of 667	R-BY24824	Unknown Origin	
Gury	January 09 2019	1 to 700	9	10 of 648	R-BY24176	United Kingdom	
REID	April 24 2018	1 to 700	9	15 of 676	R-BY23988	Unknown Origin	John REID, 4/03/1752, Cadder, Lanarkshire, Scotlan
Allison	May 20 2018	1 to 111	9	Not Available	R-M269	Unknown Origin	
Harrison	April 24 2018	1 to 700	9	9 of 649	R-Y133702	United States	Scott R. Harrison b 1886, d 1973
Mason	September 09 2018	1 to 700	9	15 of 664	R-BY23536	Unknown Origin	Wm Strother, d. 1702 VA; 1800s Central AL
Strother	September 19 2018	1 to 700	9	13 of 674	R-BY23497	Unknown Origin	William Strother, d. 1702 Virginia
Mason	April 24 2018	1 to 700	10	17 of 671	R-BY23536	Unknown Origin	Strother, 1800s Central Alabama
Strother	September 06 2018	1 to 700	10	11 of 673	R-A20343	Unknown Origin	William Strother, d. 1702 Virginia
Allison	April 24 2018	1 to 500	10	1 of 429	R-BY87763	Scotland	George Allison, b. Abt. 1768 d. 1839 Pine Twp, PA
Strother	January 20 2021	1 to 700	10	12 of 609	R-Y133702	Unknown Origin	

Figure 1: Snapshot of test subject Ellison’s closest Y-DNA STR genetic surname matches. The more Y-DNA STR markers two people share the more recent their shared paternal ancestor once lived. The test subject’s closest Y-DNA STR genetic surname matches are **NOT RANDOM**; he matches many named Allison (**black arrows**) from which his ‘Ellison’ surname has evolved. The exclusively Scottish ‘Strother/Struthers’ (**yellow arrows**) and Scottish-associated ‘Mason’ (**purple arrows**) surnames also recur among his closest genetic relatives. Highlighted font indicates the ethnicity associated with each surname or location of an earliest paternal ancestor: **Scottish/Scotland**, **Irish/Ireland**, **Scottish-associated**.

Y-DNA STR Recurring Surname Matches								
Test Subject	Haplogroup	111 Marker Matches			67 Marker Matches		37 Marker Matches	
		Genetic Distance			Genetic Distance		Genetic Distance	
		2	8	9	7	1	4	
Ellison	R-M269	Allison (x17)	Struthers/Strother (x9)	Mason (x2)	Butler (x4) Brooks (x3)	Conkin (x4)	Wilson/Wllison (x4)	

Figure 2: Recurring Y-DNA STR matches reveal a close link between the Allison and Scottish Struthers surnames. Surnames appear at the point at which they first occur as a genetic match while figures in brackets represent the number of individuals with a particular surname who appear as a genetic match at the 111, 67, 37, and 25 marker levels e.g., the first match to an individual named Allison shares 109/111 STR markers, although not all 17 males named Allison may match at that level. Y-DNA STR testing reveal multiple males named Allison and Struthers who are closely related. This indicates that the Allison and Struthers surnames arose among a group of related Scottish males at some point after the appearance of surnames in Scotland an estimated 1,000 years ago. Highlighted font denotes each surnames associated ethnicity; **Scottish**, **Scottish-associated**, **English**, **Irish**.

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Closest Y-DNA SNP Matches			
Surname	Shared Variants	Match Date	SNP Difference
Allison ←	1060931	4/16/2022	13
Struthers ←	717774	4/16/2022	15
REID	1081464	4/16/2022	19
Dr. Thomas McWane Allison M.D. ←	1078662	4/16/2022	19
Struthers ←	1071752	4/16/2022	20
Strother ←	1085520	4/16/2022	21
Strother ←	1081271	4/16/2022	21
Allison ←	1080164	4/16/2022	21
Butler	1066397	4/16/2022	21
Allison ←	734399	4/16/2022	22
Allison ←	1083726	4/16/2022	24
Strother ←	1083606	4/16/2022	24
Harrison	1074872	4/16/2022	25
Strawther ←	1063479	4/16/2022	25
Strother ←	1087065	4/16/2022	26
Strother ←	1081540	4/16/2022	26
Strother ←	743323	4/16/2022	30
O'Dea	708944	4/16/2022	30

Figure 3: Snapshot of test subject Ellison’s closest Y-DNA SNP genetic surname matches. The more Y-DNA SNP mutations two people share the more recent their shared paternal ancestor once lived. The test subject’s closest Y-DNA SNP genetic surname matches are **NOT RANDOM**; he matches many named Allison (**black arrows**) and Struthers/Strother/Strawther (**yellow arrows**). The appearance of exclusively Scottish (Struthers) and Scottish-associated (Allison) surnames among his recurring SNP matches indicates a paternal origin within Scotland. The presence of Irish-associated surnames supports the family history of a more recent link with Ireland. Highlighted font indicates the ethnicity associated with each surname: **Scottish/Scotland**, **Irish/Ireland**, **Scottish-associated**.

Upon commercial ancestral Y-DNA testing, the test subject matched many males named ‘Allison’ from which ‘Ellison’ has evolved as a common spelling variant, see **Figures 1, 2, and 3**. This indicates that the test subject is directly descended from an ‘Allison-Adam.’ Allison is a common surname which is associated with Scotland, and the dominance of the exclusively Scottish ‘Struthers’ surname among his closest recurring SNP matches indicates that he is directly descended from a Scottish Allison-Adam, see **Figure 2**. The appearance of Irish surnames among his Y-DNA SNP matches supports the family history that records his Ellison paternal ancestor in Ireland, see **Figures 2 and 3**.

The Allison and Ellison surnames in Ireland and Scottish

The test subject records their earlier ‘Ellison’ near Saintfield Village in County Down in Ireland. Early Irish census data reveals a wealth of information regards the origin of each Irish surname. Those surnames with a Catholic majority are of Gaelic Irish and Norman origin, while those with a Protestant majority are of 16th and 17th Century Scottish and English Plantation origin. In addition, early census data reveals that farmers with each Irish surname still concentrate in or near the area where their surname first appeared (Gaelic Irish) or where their ancestors first settled (Norman/Planter). An examination of early Irish census data reveals that the Allisons

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and Ellisons are overwhelmingly Protestant and concentrated in 3 distinct groups, see **Figure 4**.

Like Ireland, Scottish surnames arose approximately 1,000 years ago in an agrarian society. As a result, farmers with each surname could still be found in early census data 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 Scottish farmers named 'Allison' to determine how many Scottish clans used that surname. The 1841 census reveals the existence of at least 4 distinct group of 'Allison' farmers found throughout Scotland, see **Figure 5**. Hence, there were potentially 4 genetically distinct Allison clans, each founded by an Allison-Adam, one of whom (as revealed by the Y-DNA test results) the test subject is related to.

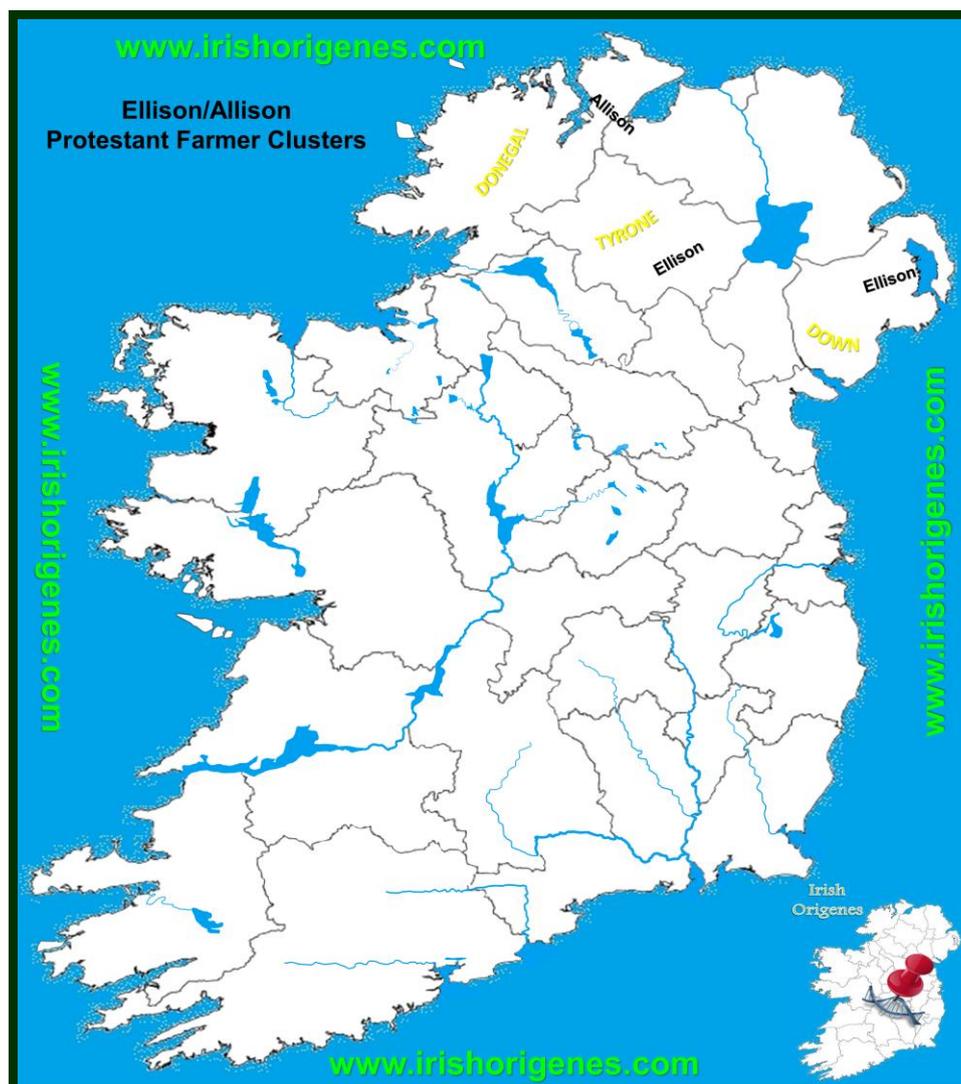


Figure 4: The Irish Allison farming community. Census data reveals that the Irish Allison and Ellison community were overwhelmingly Protestant and hence the descendants of 17th Century settlers. Distribution mapping of farmers named Allison and Ellison reveals 3 distinct groups found throughout Ulster in the North of Ireland. Each surname has been placed on the map in the area where farmers (Protestant/male/heads of household) with that surname concentrate in early census data. The most common spelling is detailed in each location.

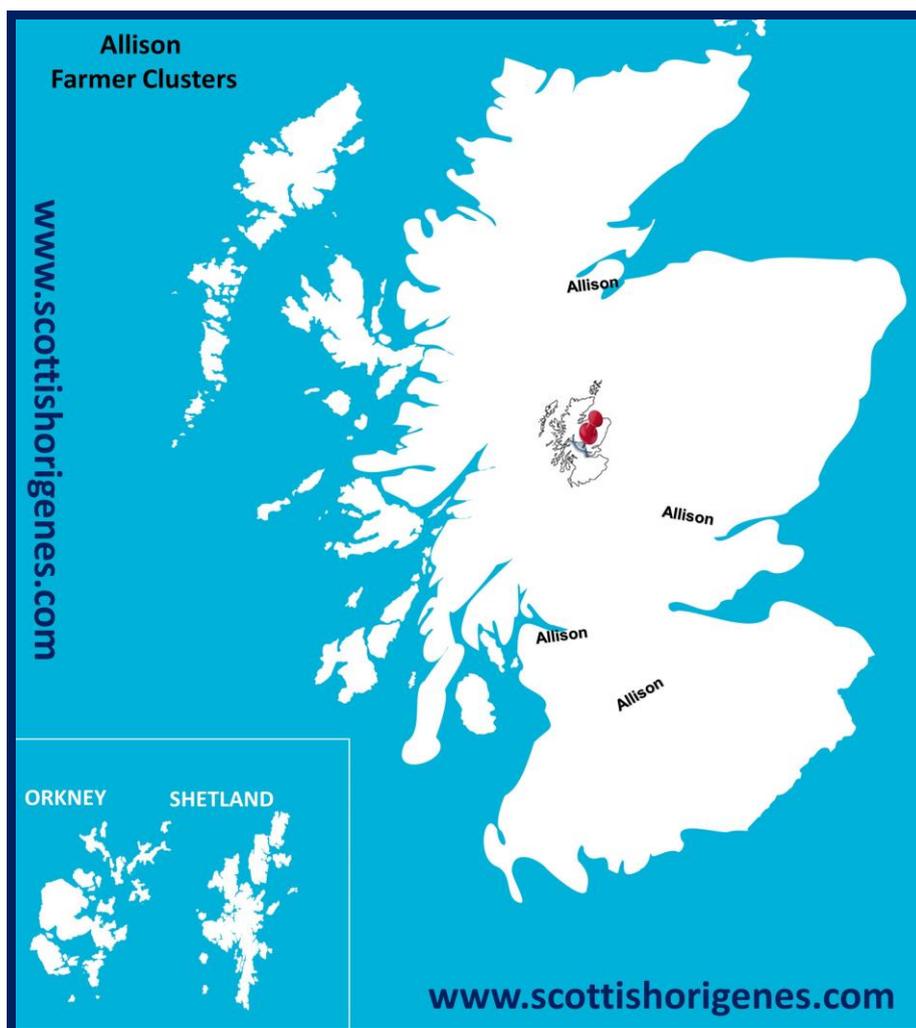


Figure 5: The Scottish Allison farming community. Distribution mapping of farmers named Allison reveals 4 distinct groups found throughout Scotland. Each surname has been placed on the map in the area where farmers with that surname concentrate in early census data. The most common spelling is detailed in each location.

A Paternal Ancestral origin within Southwest Central 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 can still be found farming the land where their ancestor lived when he first inherited his surname, or where one's ancestor first settled, one can plot where farmers with the surnames that appear in one's Y-DNA results originate and identify an area common to most if not all. This means that upon Y-DNA testing a male named 'Allison' from Perthshire will be a Y-DNA genetic match to males named Burnfield, Fenwick, and Kinnear, surnames associated the Eastern Highlands. In contrast, an 'Allison' male from the Black Isle will be a Y-DNA genetic match to individuals named Tuach, MacFarquhar, and Monroe, surnames associated with Ross and Cromarty in Northern Scotland.

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The test subject's Y-DNA results reveals that the Allison and Struthers surnames are intricately linked, see **Figures 1, 2, and 3**. Struthers is an exclusively Scottish surname and distribution mapping of Scottish farmers named Allison and Struthers reveals that they *ONLY* occur together within Southwest Central Scotland, see **Figure 6**. An examination of the surnames associated with Southwest Central Scotland reveals the Y-DNA SNP matching Allisons, Struthers, and Mason surnames see **Figures 2 and 7**. The test subject's Y-DNA results reveal a paternal ancestral origin Southwest Central Scotland.

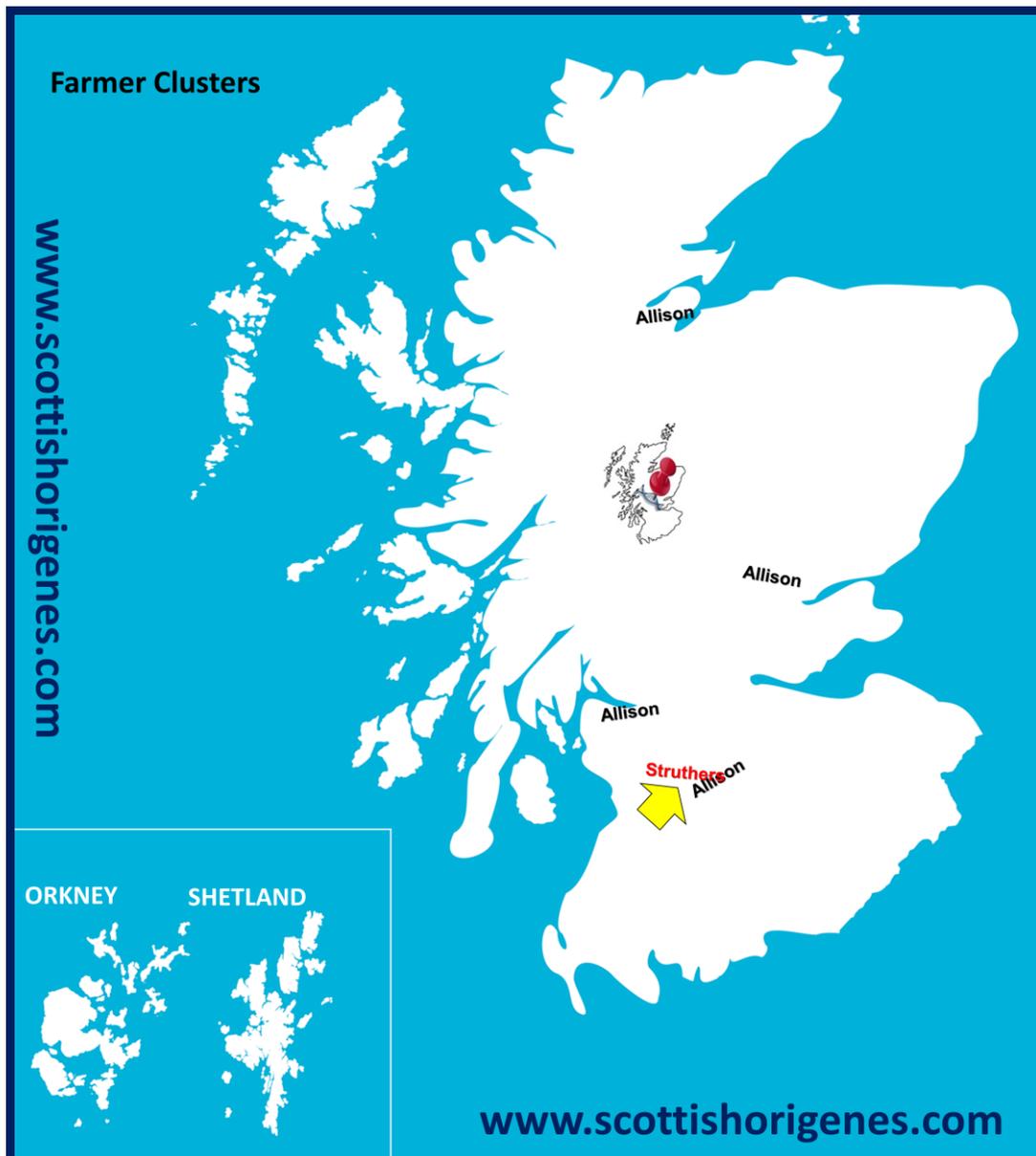


Figure 6: Overlay mapping reveals a paternal origin within Southwest Central Scotland. Y-DNA SNP testing reveals that the Allison and Struthers surnames are closely related, and that those surnames arose among related males living in a specific location. Early UK census data reveals that Struthers is an exclusively Scottish surnames, and distribution mapping reveals that Struthers farmers are exclusive to Southwest Central Scotland where they occur together with Allisons (**yellow arrow**). Each surname is positioned in the location where farmers with each surname concentrated in early census data. The most common spelling is detailed in each location.

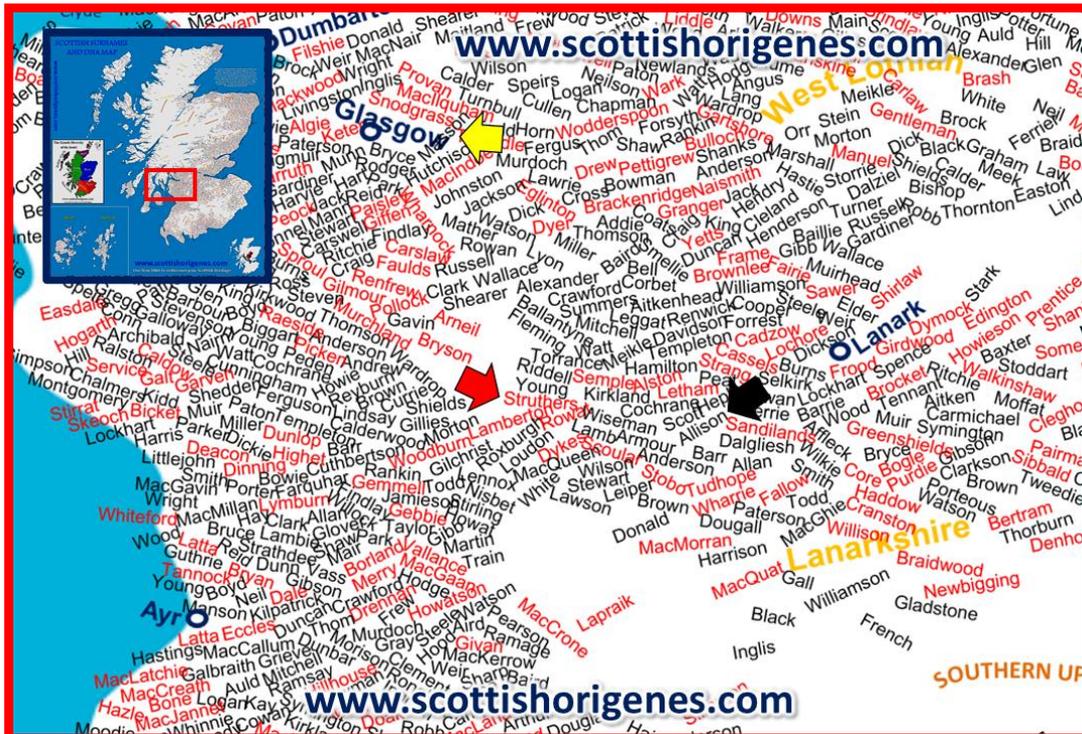


Figure 7: The Surnames of Southwest Central Scotland. An examination of the surnames of Southwest Central Scotland reveals the Y-DNA SNP recurring Allisons (**black arrows**) and Struthers (**red arrow**) surnames. The surrounding area also reveals the Mason surname (**yellow**) which appears as a close recurring STR match. Each surname is positioned in the location where farmers with each surname concentrate in early census data. The most common spelling is detailed in each location. Surnames in **red font** (like 'Struthers') are associated with a single geographical area within Scotland. Image taken from the Scottish Origenes Surnames of Scotland map, now free to view online: <https://www.origenismaps.com/>

The Clan Territories of Southwest Central Scotland

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 of Southwest Central Scotland reveals a diverse mix of clans and families of Scots Gael, Norman, Viking, Anglo-Saxon, and Ancient Briton origin, see **Figure 8**. The clan map reveals that the test subject's Allison ancestors lived near lands associated with the Hamilton, Montgomery, and Stewart families who were prominent in the Scottish plantation settlement of Ulster in the early 1600's, see **Figure 8**.

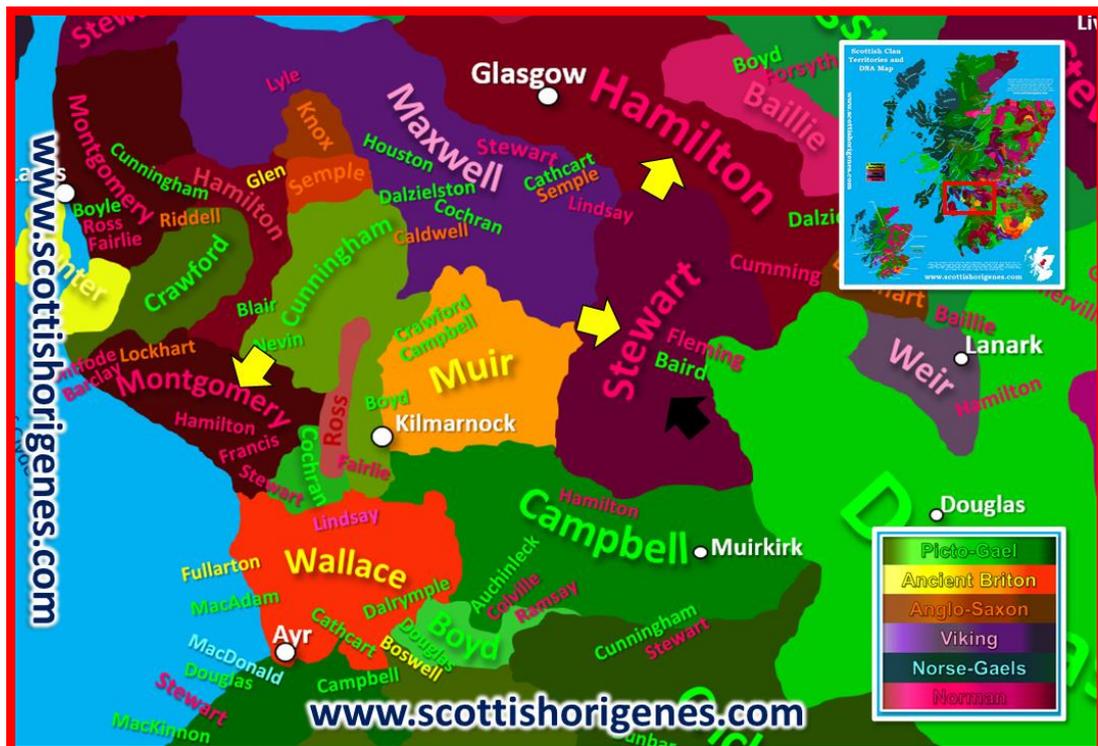


Figure 8: The principal Medieval Clans and Families of Southwest Central Scotland. An examination of Southwest Central Scotland as it appears on the clan territories map reveals an area dominated by a diverse mix of clans and families that claim Scots Gael, Norman, Viking, Anglo-Saxon, and Ancient Briton origin. The test subject's Allisons lived (**black arrow**) close to lands dominated by the Hamiltons, Montgomeries, and Stewarts (**yellow arrows**) who were the most prominent Lowlander Scottish families involved in the Plantation of Ulster (1610AD). The Hamiltons, Montgomeries, and Stewarts recruited tenants (like the test subject's Allisons) from Southwest Central Scotland for settlement in Ireland. The Scottish Origenes clan map was reconstructed based on castles and towerhouses and their historically associated clan or family. Image taken from the Scottish Origenes Clan Territories of Scotland map, now free to view online: <https://www.origenesmaps.com/>

Mr. Ellison's Scottish Paternal Ancestral Genetic Homeland

Early census data reveals that the 'Allison' farming community concentrates in the parish of Avondale in the Avon River Valley which lies to the southwest of Strathaven Town in Lanarkshire, and it is there that the test subject's Scottish Paternal Ancestral Genetic Homeland is to be found, see **Figure 9**. It was there that the test subject's direct male ancestor lived when surnames first appeared in Scotland an estimated 1,000 years ago, and where his paternal ancestor first took the 'Allison' surname, surrounded by genetic relatives who would take other surnames like Struthers and Mason. The longer a surname has been linked with an area the greater the likelihood that one will find evidence of that surname in the surrounding monuments and placenames. Although no placenames associated with the Allisons could be identified, one does find locations associated with the Struthers and Masons, see **Figure 9**. The test subject's paternal ancestors will however have left evidence of their long ancestral links with this area in its history, and in the DNA of the current inhabitants.

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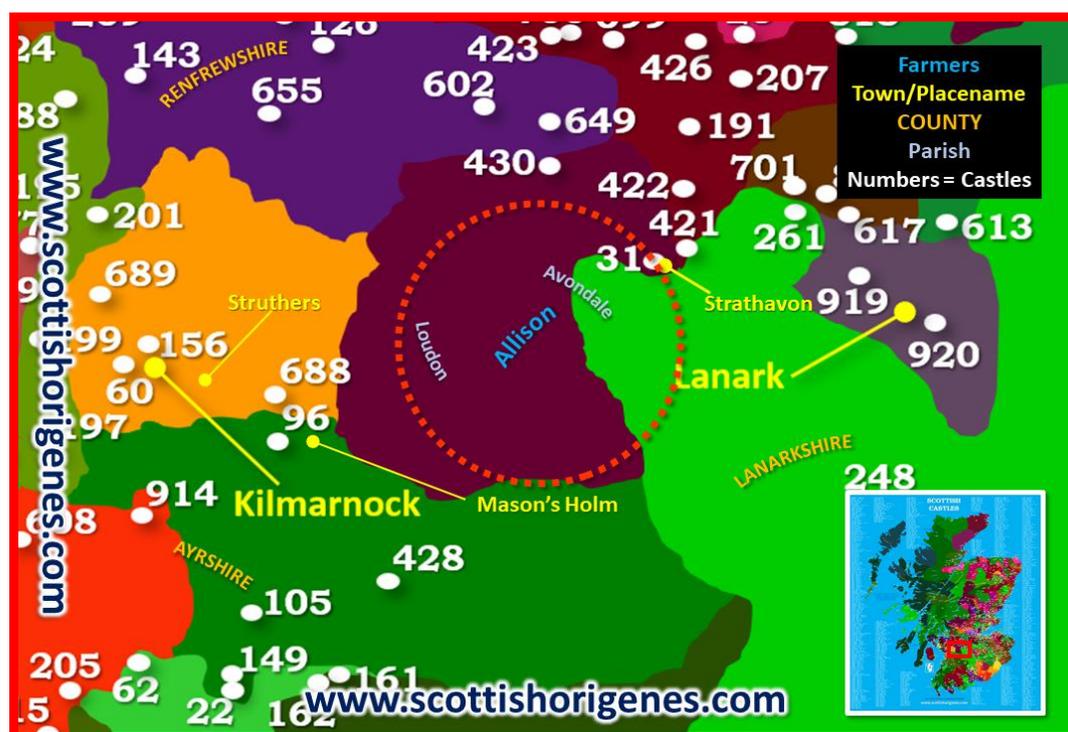


Figure 9: Mr. Ellison's Scottish Paternal Ancestral Genetic Homeland. Early census data reveals the 'Allison' farming community concentrated in the farmland that lies along the Avon River valley which lies to the southwest of Strathaven Town, and it is there that the test subject's Scottish Paternal Ancestral Genetic Homeland (orange broken circle) is to be found. It was there that the test subject's direct male ancestor lived when surnames first appeared in Scotland an estimated 1,000 years ago, and where his paternal ancestor first took the 'Allison' surname. His Allisons lived surrounded by genetic relatives some of whom took other surnames like Struthers and Mason, both of whom have left evidence of the links with this area in the surrounding placenames. Image taken from the Scottish Origenes Castles of Scotland map, now free to view online: <https://www.origenesmaps.com/>

From Allison to Ellison

The Plantation of Ireland was a highly organised affair, and research at Irish and Scottish Origenes has revealed that the Plantation surnames in each location mirror those of their Scottish or English origin, indicating that whole communities had departed, travelled, and settled together within Ireland. That process would be repeated as more land became available to settle, until almost all of Ulster was colonised. An examination of the Plantation surnames associated with the area surrounding the village of Saintfield in County Down where the test subject records their earliest ancestors reveals the 'Ellison' surname together with other surnames that area also associated with West Central Scotland, see **Figure 10**. These results indicate that the test subject's paternal Allison ancestor settled near Saintfield in County Down in around 1610AD. Surname variants arise as one moves further from the point of origin and usually at the whim of an administrator unfamiliar with the surnames, a process that would see Allison in Counties Down and Tyrone become 'Ellison.'

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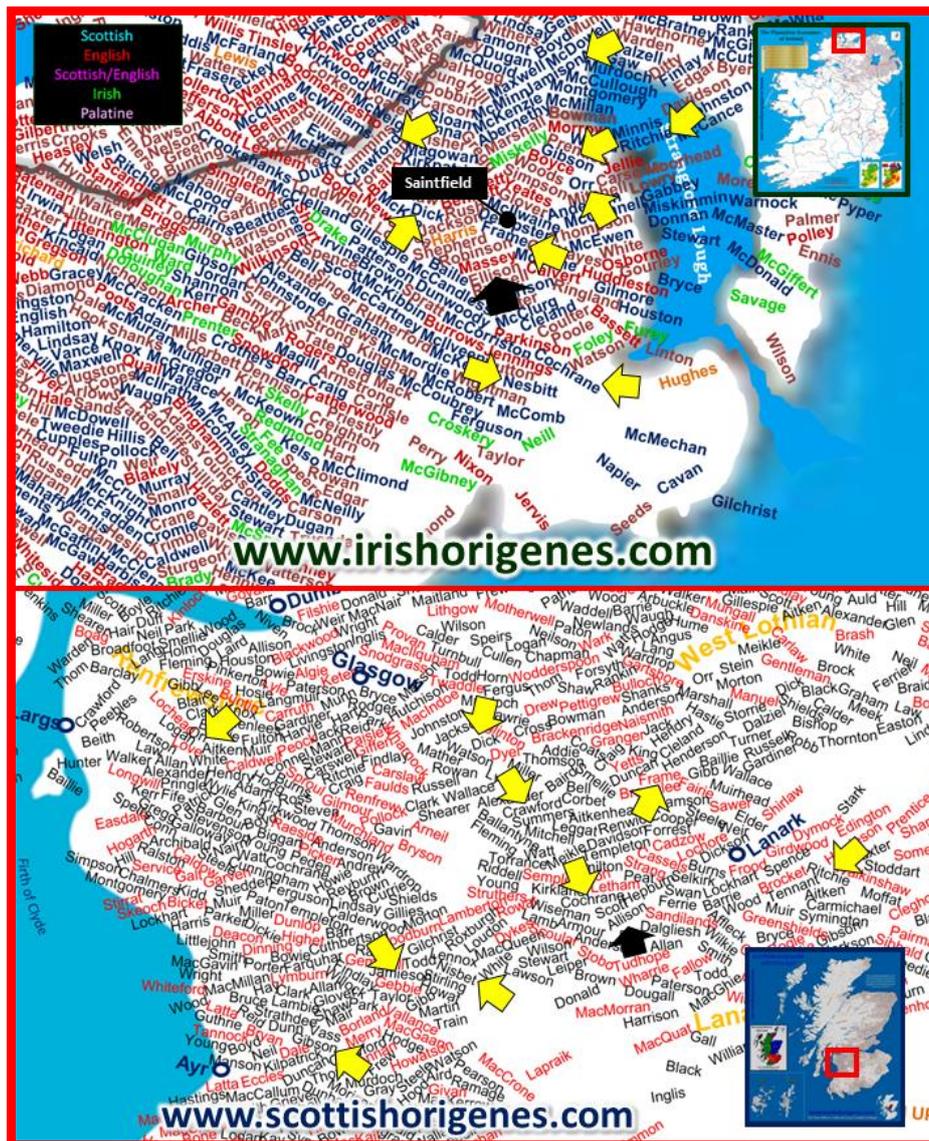


Figure 10: The Plantation Ellisons of County Down originated within Southwest Central Scotland. An examination of the Plantation surnames (**top panel**) found in County Down reveals the Ellisons (**black arrow, top panel**) surrounded by Scottish surnames, several of which (**yellow arrows**) are associated with bordering Ayrshire, Lanarkshire, and Renfrewshire in West Central Scotland. These results indicate that the test subject's Allisons settled near Saintfield Village at some point after 1600AD. Overtime their Allison surname would become Ellison. Images taken from the Scottish Origenes Plantation Surnames of Ireland and Surnames of Scotland maps, now free to view online: <https://www.origenesmaps.com/>

Mr. Ellison and Dr Thomas McWane Allison M.D.

Paternal Cousins who participated in the Plantation of Ulster

In 2012 Scottish Origenes produced a Y-DNA Case Study for a Scotsman named 'Valentine' who had a paternal ancestral papertrail that traced back to Montrose in Northeast Scotland in the early 1700's where Scottish Valentines originate, which is supported by his DNA results which show that his closest matches are indeed to other Valentines. However, Mr Valentine's Y-DNA results also reveal that he is a more distant genetic match to large numbers of males named MacGregor including the current McGregor Chief (hence his ancestor was related to the Chiefly line of the MacGregors). Given his detailed family history, his ancestor had to have changed his

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surname to ‘Valentine’ soon after the MacGregors were outlawed in 1604AD. The 1604AD time point and the genetic distance between Mr. Valentine and the current Chief of the MacGregors has allowed Scottish Origenes to estimate a time to a shared paternal ancestor based on the numbers of shared Y-DNA STR markers at the 111-marker level, where a single STR difference equates to 75-year time difference. That timeframe indicates that Mr. Ellison and Dr Thomas McWane Allison M.D. share a common paternal Allison ancestor who lived approximately 600 years ago (1422AD), see **Figure 11**.

In 2020, a comprehensive study of multiple males named McGinnis revealed that Y-DNA SNP mutations occur on average every 60-75 years in a direct patrilineal relationship. Which means that a grandson can expect to differ from his grandfather in a single Y-DNA SNP mutation. However, the paternal relationships explored in commercial ancestral SNP DNA databases are not linear, and each Y-DNA SNP mutation represent at most a generation (25 year) difference. SNP testing indicates that Mr. Ellison and Dr Thomas McWane Allison M.D. share a common paternal Allison ancestor who lived approximately 475 years ago (1547AD), see **Figure 12**.

While STRs are short repetitive sequences of DNA that are inherently unstable (being amplified or deleted with each generation), SNPs are far more permanent mutations and offer a more accurate timeframe to a shared paternal ancestor. SNP testing indicates that Mr. Ellison and Dr Thomas McWane Allison M.D. shared paternal Allison who lived in Avondale parish in Lanarkshire in around 1547AD, a mere 2 generations prior to the Plantation of Ulster (1610AD). This indicates that ‘paternal Allison cousins’ from Strathaven had participated in the Plantation of Ulster, with one ending up in County Down (Ellison) and another (Allison) in County Donegal.

Y-DNA 111 Marker STR TIMEFRAME		
Surname	Genetic Distance	Estimated time to a shared paternal Ancestor / years
Allison	2	150
allison	3	225
Allison	4	300
Allison	5	375
Allison	6	450
Allison	6	450
Dr. Thomas McWane Allison M.D.	8	600
Strother	8	600
Gury	9	675
REID	9	675
Allison	9	675
Harrison	9	675
Mason	9	675
Strother	9	675
Mason	10	750
Strother	10	750
Allison	10	750
Strother	10	750

Figure 11: Y-DNA STR testing indicates that Mr. Ellison and Dr Thomas McWane Allison M.D. share a paternal ancestor who lived in around 1422AD. Research at Scottish Origenes has revealed that a genetic distance of 1 at the 111-marker level equates to a 75-year time difference. At a genetic distance of 8 at 111-markers this indicates that Dr Thomas McWane Allison M.D. shared a paternal Allison ancestor with Mr. Ellison who lived approximately 600 years ago.

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Y-DNA SNP TIMEFRAME		
Surname	SNP Difference	Estimated time to a shared paternal Ancestor / years
Allison	13	325
Struthers	15	375
REID	19	475
Dr. Thomas McWane Allison M.D.	19	475
Struthers	20	500
Strother	21	525
Strother	21	525
Allison	21	525
Butler	21	525
Allison	22	550
Allison	24	600
Strother	24	600
Harrison	25	625
Strawther	25	625
Strother	26	650
Strother	26	650
Strother	30	750
O'Dea	30	750

Figure 12: SNP testing indicates that Mr. Ellison and Sr. Thomas McWane Allison M.D. share a paternal ancestor who lived in 1547AD. Research at Scottish Origenes has revealed that a Y-DNA SNP mutation will occur on average every 60 years in a patrilineal relationship, which means that a grandson can expect to differ from his grandfather in a single SNP mutation. However, the relationships revealed in a Y-DNA SNP test are not linear, which means that each SNP mutation can at most represent a generational difference (25 years). Commercial ancestral SNP testing reveals that their shared Allison ancestor lived in 1547AD.

How to confirm the Allison 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 Scottish origin within Southwest Central Scotland can be confirmed by Y-DNA testing males named Allison from the farmland that lies to the southwest of Strathaven Town.

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