

**Contact Dr Tyrone Bowes for a FREE CONSULTATION on
your DNA results**
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Sloan

An Autosomal DNA Case Study

www.scottishorigenes.com



A handwritten signature in black ink, appearing to read 'Tyrone Bowes'.

Dr Tyrone Bowes
6th September 2019

INTRODUCTION

There are a number of commercial ancestral DNA tests that can be used to explore one's ancestry. By far the most popular is the 'autosomal test' which sheds light over **all** of one's recent ancestral lines. With autosomal DNA testing one will typically match many individuals (both male and female) and making sense of those relationships can be quite challenging. However, as with every DNA test the same golden rule applies; the more DNA that two people share the more recent their shared (paternal or maternal) ancestor once lived. In addition, many of one's autosomal matches will reveal surnames and placenames associated with their family tree, and those surnames and locations can hold clues as to where the various branches in one's own ancestral tree originated. The challenge of modern autosomal DNA test analysis is linking a common location revealed in the DNA test results with a particular ancestral surname.

INTERPRETING THE AUTOSOMAL RESULTS

An examination of the test subject's 'autosomal' DNA test results revealed 5,624 genetic relatives, 2,438 of whom record details of their ancestral surnames and/or locations, see **Figure 1**. What is quite striking is that the locations revealed by the test subject's 'autosomal' genetic relatives are **NOT RANDOM**; given their respective population sizes, Ireland and Scotland feature prominently, see **Figure 1**.

A

FamilyFinder STATS	
Matches	5624
Ancestral details	2438
Percentage	43

B

Country	Frequency	Percentage
Ireland	424	17.4
Scotland	277	11.4
England	451	18.5
Wales	92	3.8
Germany	255	10.5
France	141	5.8
Spain	12	0.5
Italy	23	0.9
Norway	24	1.0
Poland	31	1.3
Finland	11	0.5
Russia	37	1.5

Figure 1: Family Finder Stats. Approximately 43% of the test subject's autosomal DNA matches record some sort of ancestral information (surname or location, **panel A**). The locations revealed by those genetic relatives are **NOT RANDOM**, compared to a selected number of European countries, and given their respective population sizes; **Ireland** and **Scotland** feature prominently, **panel B**.

Irish and Scottish Autosomal Matches

Ireland is divided into 32 counties, and an examination of the Irish counties revealed among the test subject's genetic relatives who record ancestral links within Ireland, revealed ancestral links with Counties Antrim and Tyrone within Ulster in Northern Ireland, and to Cork in Southern Ireland, see **Figure 2**. An examination of the

Sloan – An Autosomal DNA Case Study

ancestral surnames revealed by the test subject's genetic relatives with recorded links within County Antrim and Tyrone reveals that they are dominated by surnames of 16th and 17th Century Scottish Plantation origin. In contrast, Gaelic Irish and Norman surnames dominate within County Cork. The majority of the test subject's autosomal DNA links with Ireland are the direct result of relatively recent Scottish and English settlement, while his links with Cork are via Gael or Norman-Irish ancestral line(s).

An examination of the 1841 Scottish counties listed among the detail of the test subject's autosomal DNA matches revealed a single ancestral hotspot within Ayrshire in Southwest Scotland, see **Figure 3**. The vast majority of the Lowland Scots that settled within Ulster in the early 1600's originated from areas like Ayrshire; and it is the test subject's ancestral connections with Scotland that accounts for much of his 'Irish autosomal' DNA results.

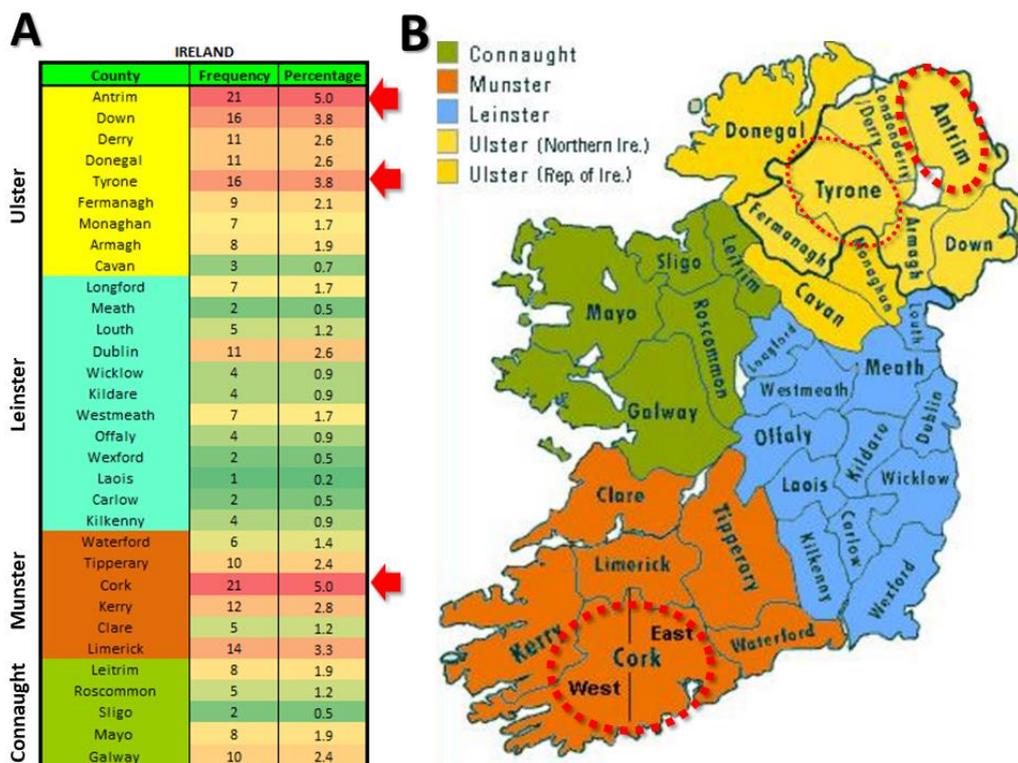


Figure 2: Autosomal matches reveal ancestral connections to three distinct areas within Ireland. The ancestral locations revealed by the test subject's genetic relatives with recorded ancestral links within Ireland are **not random**, and a search of the Irish counties revealed by the test subject's genetic relatives (**panel A**) reveals ancestral connections to Antrim and Tyrone in Ulster, and to the Cork in Southern Ireland (**red arrows panel A and red broken circles panel B**). Closer inspection of the ancestral surnames revealed among the test subject's genetic relatives reveals that they are dominated by Scottish Plantation surnames in Antrim and Tyrone, and Gaelic/Norman Irish surnames within County Cork.

Sloan – An Autosomal DNA Case Study

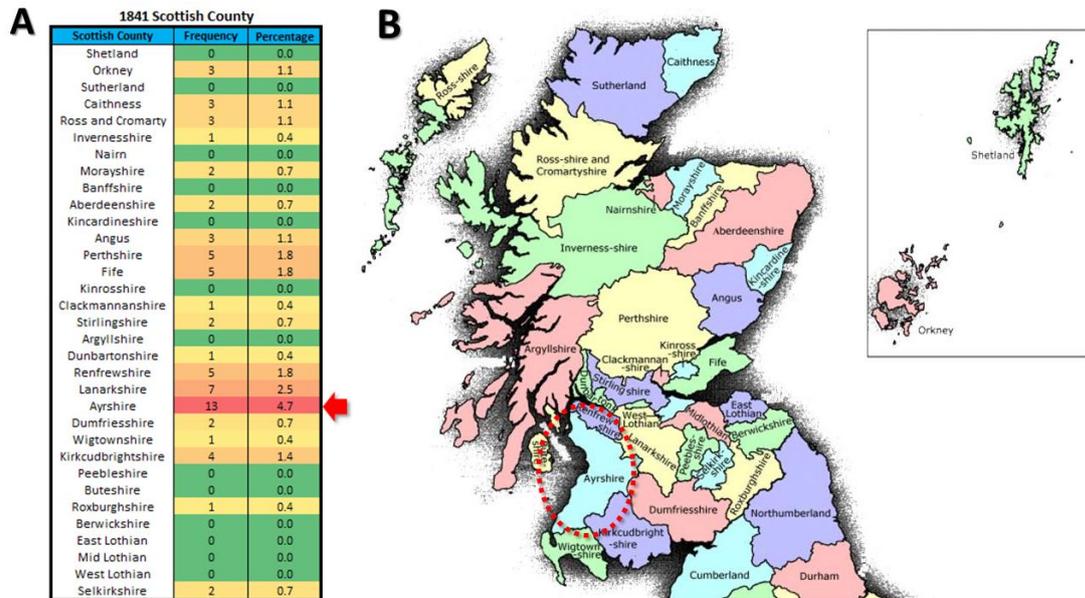


Figure 3: Autosomal matches reveal an ancestral connection to Ayrshire in Southwest Scotland. The ancestral locations revealed by the test subject's genetic relatives with recorded ancestral links within Scotland are **not random**, and a search of the 1841 Scottish counties revealed by the test subject's genetic relatives (**panel A**) revealed an ancestral link to Ayrshire in Southwest Scotland (**red arrows panel A** and **red broken circles panel B**). The vast majority of the Scots who were 'Planted' (settled) in Ulster in the early 1600's came from the Lowlands of Scotland.

Linking an Ancestral surname with an Autosomal DNA identified location

The challenge of autosomal DNA analysis is linking a location revealed in the results with one of the test subject's ancestral surnames. That can be very challenging when one's ancestral surnames are common. However, for less common surnames, which are far more limited in their distribution, one can easily link that surname to an emerging autosomal DNA identified location. Family lore connects the test subject's earliest paternal Sloan ancestors with the Scots-Irish that departed Ulster for the Americas. The test subject's autosomal DNA results confirm an ancestral link with the Ulster Scots community, particularly within Antrim in Northeast Ireland; which was one of the areas most heavily colonised by the Scots during the Plantation of Ulster. An examination of the Plantation Scottish Sloan farming community within Ireland reveals 5 distinct groups; one of which is found within County Antrim (which gave one of the strongest signals among the test subject's autosomal DNA results), see **Figure 2** and **4**. These results indicate that it was from Antrim that the test subject's Scots-Irish Sloans had settled before their departure for the Americas. The Lowlander Scots departed together and settled together within Ulster. As a result, the surnames of the Ulster Plantation communities will mirror the surnames of their original Scottish homeland. Hence, one can examine the Plantation surnames that surround the Sloans of Mid-West Antrim to determine their Scottish origin. An examination of the Plantation surnames of Mid-West Antrim reveals an area dominated by exclusively Scottish and Scottish associated surnames, many of which are exclusive to Southwest Scotland, see **Figure 5, 6** and **7**. These results indicate that the Plantation Sloans of Mid-West Antrim originated within Southwest Scotland;

Sloan – An Autosomal DNA Case Study

where a previous report by Scottish Origenes identified an origin for his Sloan paternal line.

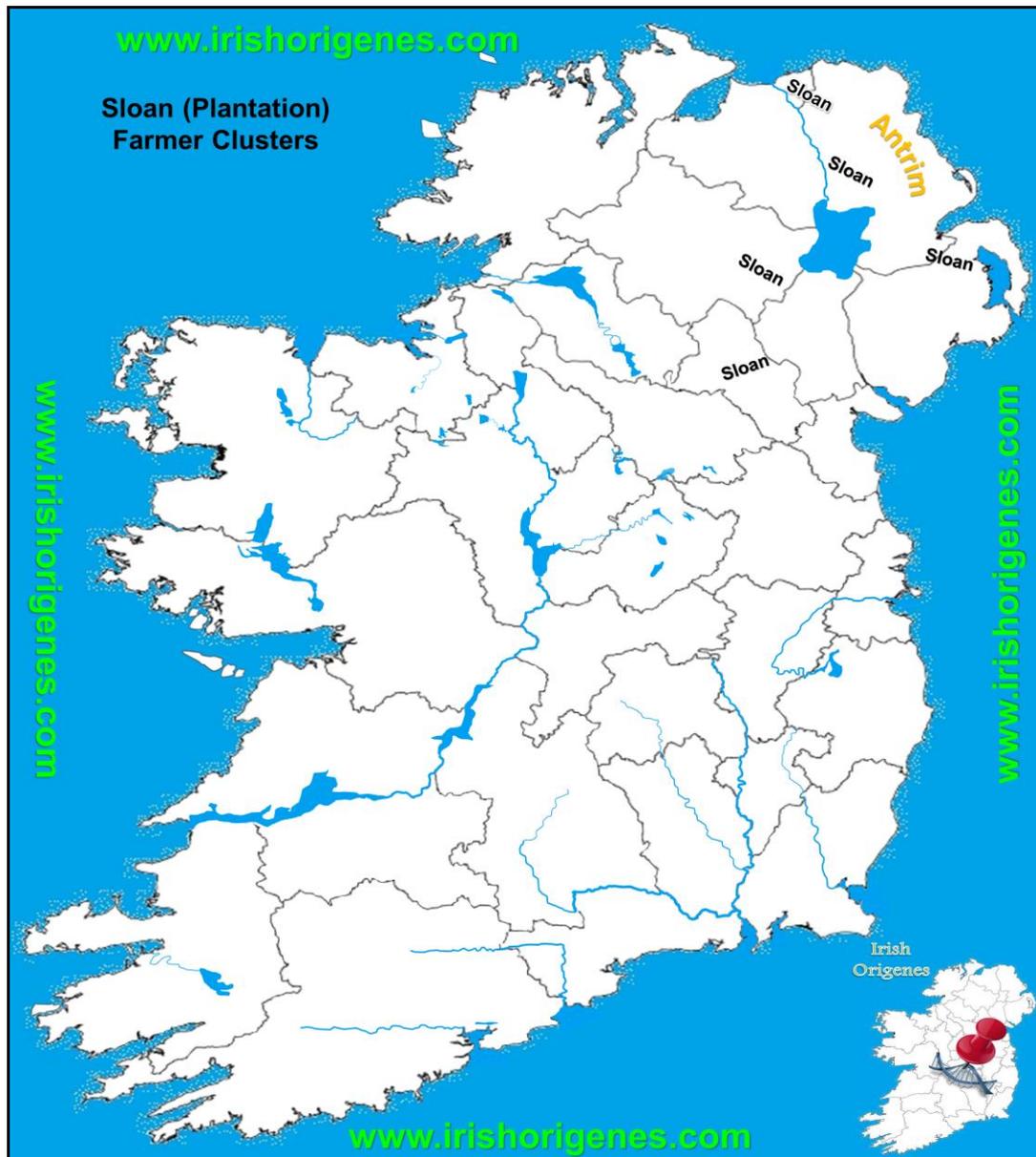


Figure 4: The Plantation Sloan farming community. An examination of the distribution of Protestant farmers named Sloan (male, heads of household) in early Irish census data reveals 5 distinct groups spread throughout Ulster. One of these groups is located completely within County Antrim which gave a strong signal from the test subject's autosomal DNA results.



Figure 5: The Plantation surnames of Mid-West Antrim. An examination of the Plantation surnames associated with Mid-West Antrim reveal an area dominated by exclusively Scottish and Scottish-associated surnames, many of which are associated with Southwest Scotland (yellow arrows). Many Scottish surnames are 'locational' in origin, and the presence of the 'Galloway' surname (grey arrow) confirms a Southwest Scottish origin for much of the Plantation community of Mid-West Antrim. Each surname is positioned in the location where farmers with each surname concentrate in early census data. The most common spelling is detailed.

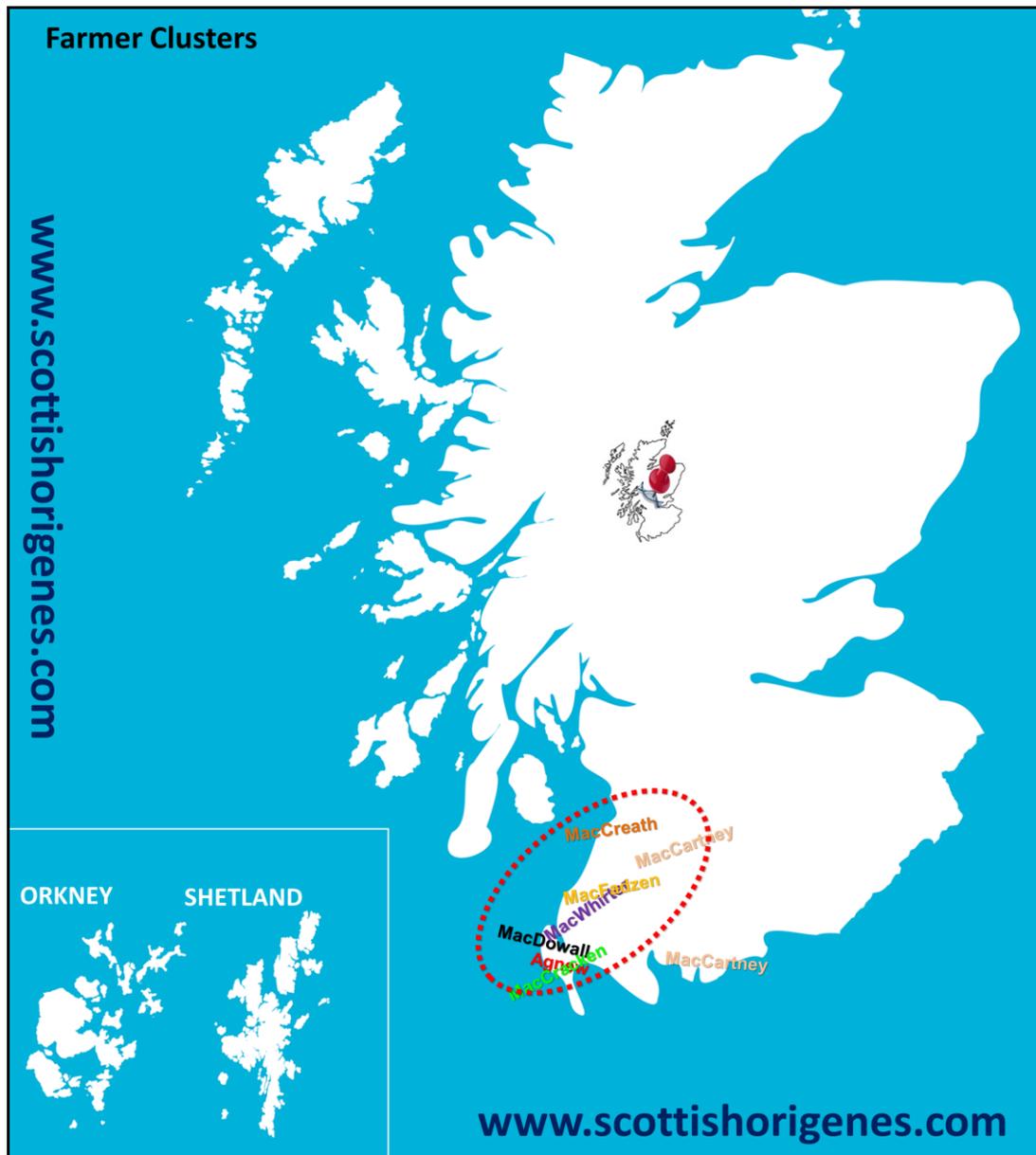


Figure 6: The Plantation Surnames of Mid-West Antrim are associated with Southwest Scotland. The Plantation Sloans of Mid-West Antrim lived surrounded by neighbours with surnames like McCrea (MacCreath), McCartney, McWhirter, McFadden (MacFadzen), McDowall, Agnew and McCracken which distribution mapping reveals are associated exclusively with Southwest Scotland (**orange broken circle**). These results indicate that the Mid-West Antrim Sloans originated from Southwest Scotland where a previous Y-DNA report by Scottish Origenes identified an origin for his Scottish Sloan paternal line.

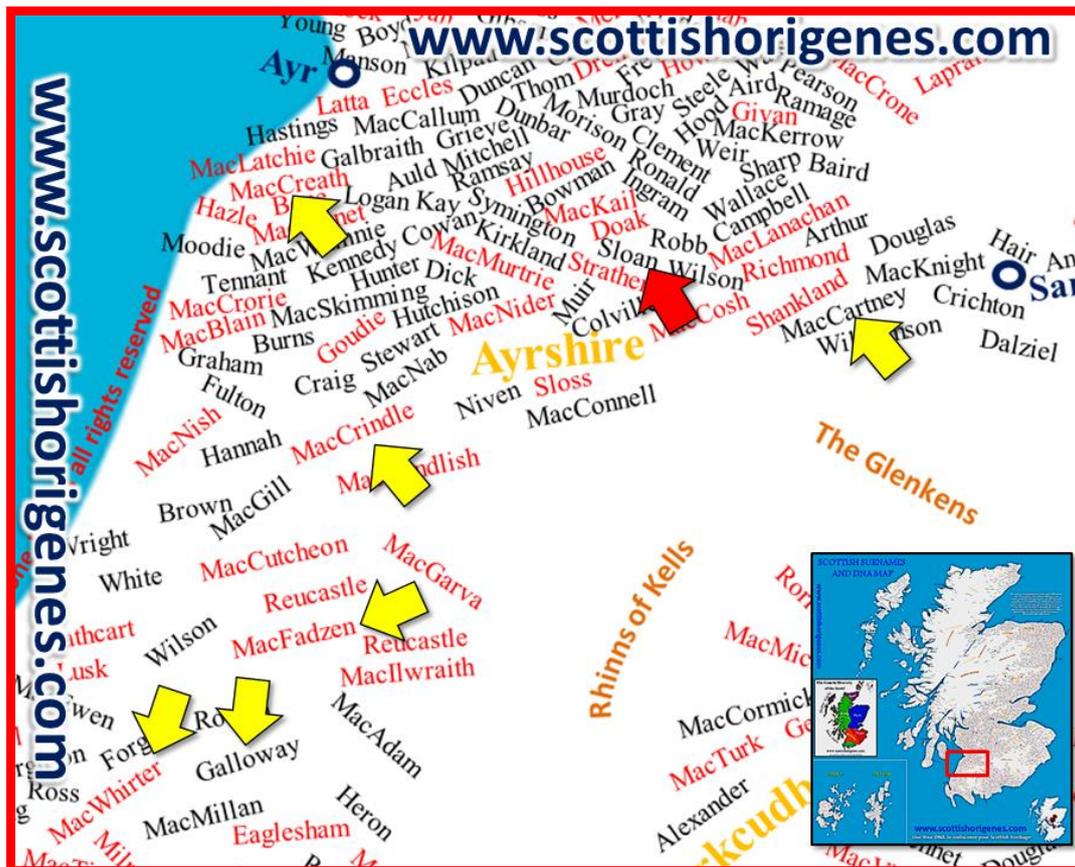


Figure 7: The Surnames of Southern Ayrshire. An examination of the surnames of Southern Ayrshire reveals the test subject's Sloan ancestors (red arrow) together with a number of surnames that appear among the plantation community of Mid-West Antrim (yellow arrows). These results indicate that the test subject's Central Ayrshire Sloan paternal ancestors settled in the farmland that lies to the west of Ballymena town in County Antrim during the Plantation of Ulster that began in 1600AD. Surnames in red font are associated with a single geographical area within Scotland. Each surname is positioned in the location where farmers with that surname concentrate in early census data. The most common spelling is detailed in each location.

SUMMARY

While commercial ancestral Y-DNA testing pinpointed an origin for the test subject's Sloan paternal ancestors within Central Ayrshire approximately 1,000 years ago, his autosomal DNA results indicate that his Sloans settled in the farmland that lies to the west of Ballymena town in County Antrim in Northern Ireland during the Plantation of Ulster that began in 1600AD. Commercial autosomal and/or Y-DNA testing of Sloans that live and farm in the Ballymena area will confirm the ancestral link with that area.

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