

Gowin

A Scottish Case Study

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

Dr Tyrone Bowes
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Introduction

A commercial 37 marker 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 many individuals with different surnames? The answer is quite simple. Roughly 1,000 years ago one's direct medieval male ancestor, the first for example to call himself 'Gowan' was living in close proximity to others with whom he was related but who assumed other surnames like McWhirter, McCulloch, Hannah, Ferguson, and Wilson. Given that 1,000 years have passed since surnames were adopted, there will be many descendants of these individuals some of whom will today undergo commercial ancestral DNA testing. Hence the surnames of one's medieval ancestor's neighbours will be reflected in today's DNA test results.

Early 19th century census data shows that Scottish surnames could still be found concentrated in the Counties from which they originated. In this manner one can examine surname distribution maps (for the surnames that appear as a genetic match) and pinpoint a '**Genetic Homeland**.' The Genetic Homeland is the small area where one's ancestors lived for hundreds if not thousands of years. It is the area where one's ancestors left their mark in the placenames of that area and in the DNA of its current inhabitants. Since modern science can pinpoint a Genetic Homeland it can also be used to confirm it by DNA testing individuals from the identified location. The Case Study below will detail how I made sense of the test subject 'Gowin's' Y-DNA results and will provide a checklist at the end of the report on how to proceed in identifying your own Genetic Homeland.

Notes of caution!

1. In Ireland each of the estimated 1,500 distinct Clans had a single founding ancestor, that's an estimated 1,500 Adam's from whom anyone with Irish ancestry can trace direct descent. But science has demonstrated that only 50% of individuals with a particular Irish surname will be related to the surnames founding ancestor, the other 50% of people will have an association that has arisen as a result of what are called 'non-paternal events' usually a result of adoptions or infidelity. 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 reflect one's ancestor's neighbours from around 1,000 years ago. As a result, if your recent Scottish ancestor was originally an Anglo-Saxon settler, Viking raider, or 12th Century Norman your DNA results will reflect earlier English, Welsh and possibly Scandinavian origin. One must approach this process with an open mind!

Interpreting the Y-DNA test results

To identify a Genetic Homeland one must first find the surnames that continually appear as genetic matches. These reoccurring surnames are less likely to be a result of non-paternal events (adoptions/infidelity) and reflect the surname of a medieval ancestors neighbour. Results for test subject 'Gowin' are shown in **Table 1**.

SURNAMES THAT REOCCUR AS A GENETIC MATCH TO TEST SUBJECT GOWIN FROM 67 MARKER Y-CHROMOSOME DNA TESTING

Test subject	exact	67 marker level						
		-1	-2	-3	-4	-5	-6	-7
Gowin	-	Gowin/Goins/ Gowen/Gowan (x9)	Mac/McDonald (x4)	-	-	Parker (x8) O'Neill (x6) Clark (x2)	McCarty (x4) Mitchell (x9) McGinnis/Meginnis (x5) Gillespie (x24) Radcliffe (x3)	Carswell (x8) Carson (x8) Mac/McNeill (x4) Mills (x3) McCullar/McCullough/McCollough/McCulloch (x15) Rice (x5) Malone (x14)¹ Gunning (x2) Burns (x2) McWhirter/McWherter/McWhorter/McWhirt (x13) Wilson (x6)

Table 1: Reoccurring surname matches for test subject Gowin. Surnames appear at the point at which they first occur as a genetic match e.g. the first match to another individual called Gowin (or spelling variant) occurs at 66/67 markers although not all Gowin's may match at that level. Figures in brackets represent the number of individuals with a particular surname who occur as a genetic match. Coloured font denotes the ethnicity associated with each surname; **Scottish** and **Irish**, black font indicates surnames with multiple ethnic origins. Surnames in bold font are associated with Scotland and occur greater than 6 times. ¹Multiple members of the same family testing (these are excluded from analysis).

The test subject Mr Gowin is a genetic match to other 'Gowin's' which means that he has retained the surname of a Gowin 'Adam' who lived approximately 1000 years ago. In 1881 the most common spelling of the test subjects surname was 'Gowan,' see **Figure 1**. When one examines the 1881 surname distribution maps for the surnames that appear as a close Genetic match to Mr Gowin as revealed in Table 1, a clear ancestral link to Scotland is revealed, see **Figure 1**. Within Scotland these surnames do not initially appear to have a common area of association. However, the surnames Gowan, Carson, Hannah, McCulloch, and McWhirter are unique in that they are all overwhelmingly associated with a single geographical location found within Scotlands' southwest, see red arrows **Figure 1**.

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WHERE DO THE SURNAMES THAT OCCUR AS THE CLOSEST GENETIC MATCHES ORIGINATE?

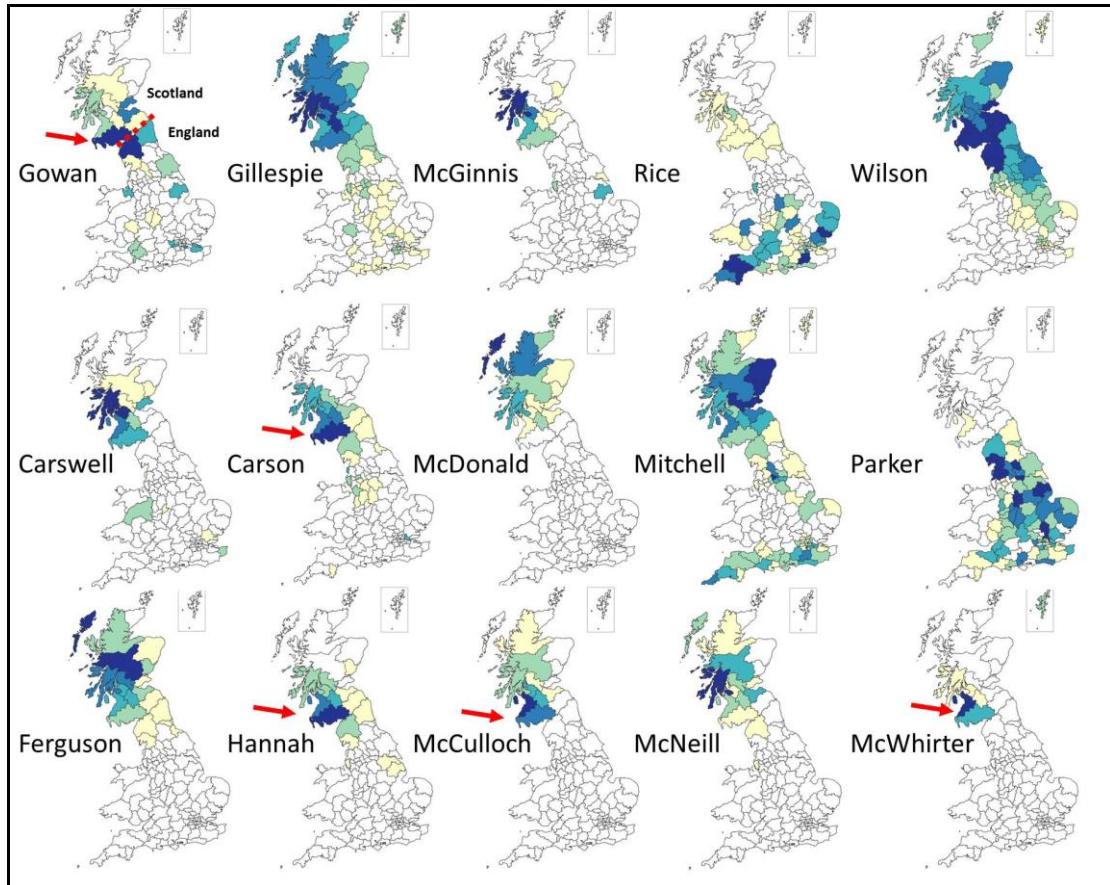


Figure 1: 1881 Surname distribution mapping of Mr Gowin's closest reoccurring genetic surname-matches indicates a paternal ancestral link with Scotland. Although the surname Gowin may be of English or Scottish origin it does appear concentrated in the Scottish southwest (red arrow). The reoccurring genetic matches to Carson, Hannah, McCulloch, and McWhirter are particularly interesting as these surnames are associated with a single geographical area within Scotland's southwest.

Pinpointing the Scottish Gowin Genetic Homeland

The method of using reoccurring surname matches as revealed by commercial ancestral Y-DNA testing to pinpoint a Genetic Homeland works by exploiting the link between the Y chromosome, surname, and land which are typically passed from father to son. In the absence of a link to the land the process of pinpointing an origin becomes much more challenging. Hence one must determine whether the Scottish Gowans had a link to the land, this can be done by examining where farmers with this surname were found using census data. The earlier in time that a link can be established the better as over time (particularly in the UK due to the early industrial revolution) the link with the land is lost.

In 1841 a single solitary Gowen is recorded farming in Ballantrae parish, see **Figure 2**. Surrounding Ballantrae town one also finds farmers with the surnames McCulloch, McWhirter, Wilson, Mitchell, McDonald, Hannah, Parker, Carson, and Gillespie. This clustering of surnames that appear as frequent genetic matches to Mr Gowin occurs nowhere else. In fact Gowen, McCulloch, McWhirter, Carson, and

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Hannah farmers are exclusive to this area of Scotland, with four of these unique surnames occurring within or very close to Ballantrae Parish, see **Figure 2**.

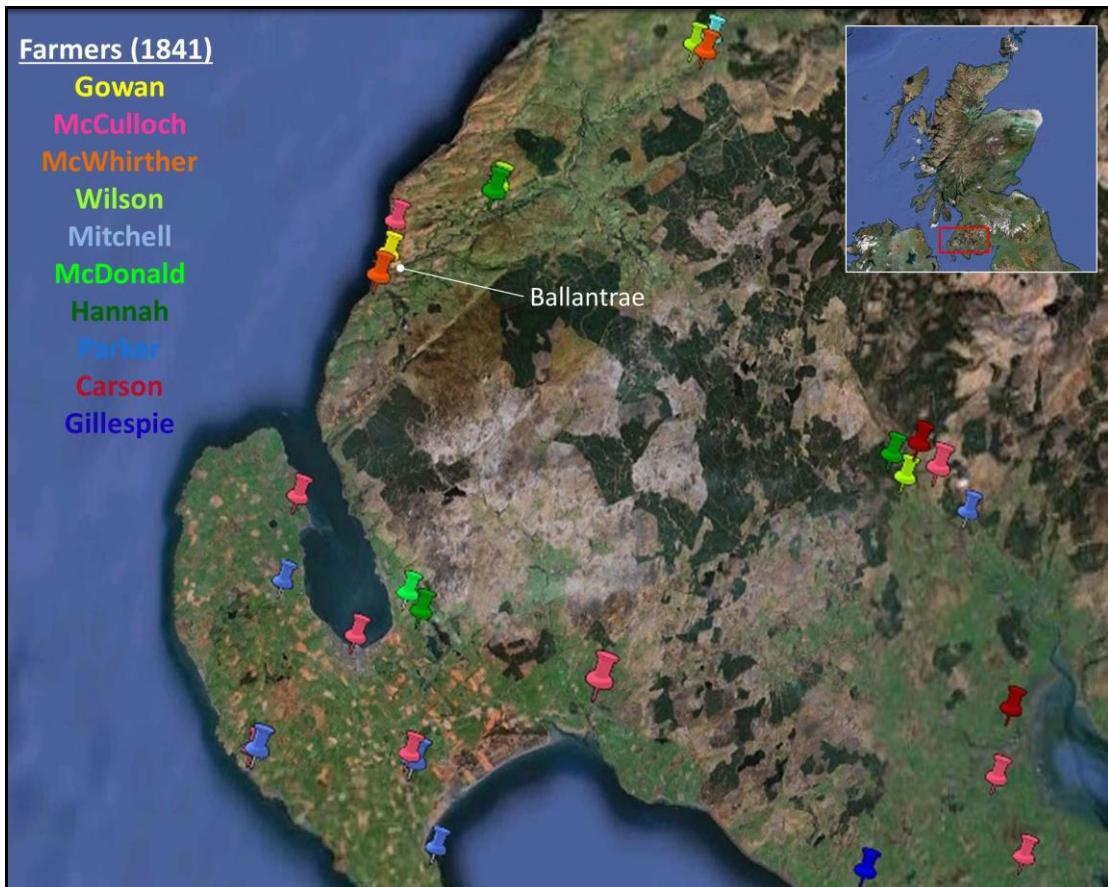


Figure 2: The farming community associated with Mr Gowin's reoccurring genetic surname matches cluster around Ballantrae. When one plots where the Scottish surnames that reoccur most frequently as Mr Gowin's genetic matches occur, a pattern emerges with the farming communities clustering around Ballantrae, where a solitary Gowan farmer can be found in 1841. Farmers with the Gowan, Hannah, McWhirter, and Carson surnames are exclusive to this area. Pin size is indicative of frequency.

The Clan system in Scotland has been extensively recorded and documented and it is beautifully illustrated in Bartholomew's Clan map. This map features the lands, or the areas of influence of the most prominent Clans in Scotland from around 500 years ago. Almost everyone with Scottish ancestry will be genetically related to at least one of these prominent Clans and families. Although there is no mention of Clan Gowan, there are reference's to Mr Gowin's close genetic relatives including the McDonnell's (McDonald's) and McNeill's found to the northeast of Ballantrae across the Firth of Clyde on the Mull of Kintyre. While to the South one finds the territories of Clan MacAdam, Ferguson and Hunter (on Arran), these surnames reoccur as close genetic matches at the 37 marker level, see **Figure 3**.

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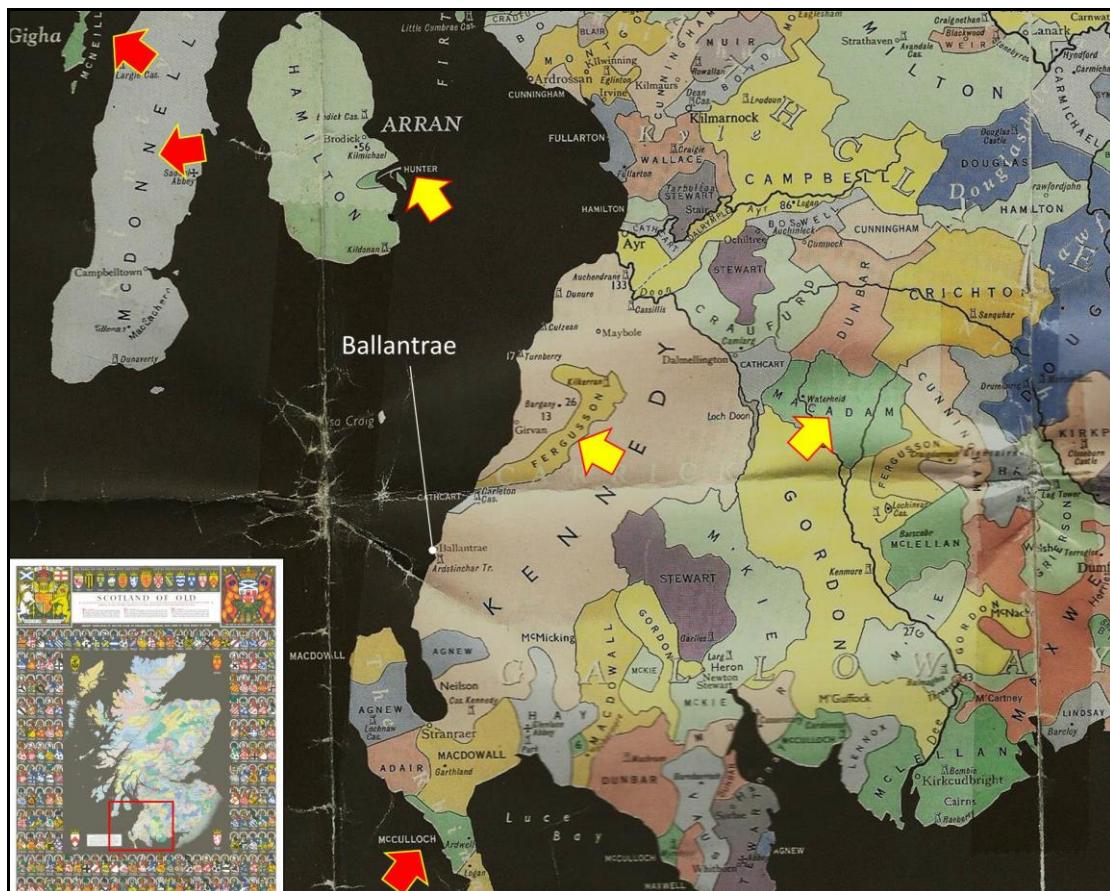


Figure 3: 15th Century Clan map of central Ayrshire in Scotland. There is no mention of Clan Gowen, however prominent Clans that reoccur at the 67 marker level including McCulloch, McDonnell (McDonald) and McNeill are visible (red arrows). Prominent Clans that reoccur as close genetic matches at the 37 marker level including Ferguson, Hunter, and McAdam are also found surrounding Ballantrae (Yellow arrows).

The Gowin Genetic Homeland evidence in its placenames

Evidence for one's ancestor's long association with an area can be found in its placenames. An examination of the area surrounding Ballantrae (where the Gowin's McWhirter, McCulloch, and Hannah farming communities co-localise in 1841) revealed a Gowan's burn and Knockgowan (Gowan's hill). One also finds Wilson's Glen, Wilson burn, and Tormitchell (Mitchell's cattle field), the Wilson's and Mitchell's occur as close genetic relatives in Table 1), see **Figure 4**.

The area surrounding Ballantrae is Mr Gowin's Genetic Homeland. It is here that the Scottish Gowen 'Adam' lived when he first picked his surname surrounded by relatives who chose other surnames like McWhirter, Hannah, Carson, and McCulloch. It is here that Mr Gowin's ancestors lived for 100's if not 1000's of years of years, leaving their mark in the placenames and in the DNA of the current inhabitants, and it is where his distant relatives may still live.



Figure 4: Mr Gowin's Genetic Homeland (orange broken circle) centred upon Ballantrae in south Ayrshire. Placenames associated with Clan Gowen including Gowan's Burn, and Knockgowan (Gowan's hill) can be found surrounding Ballantrae where a solitary Gowan farmer is found in 1841. One also finds references to Clan Gowen's genetic relatives the Wilson's just south of Ballantrae and the Mitchell's to the north.

HOW TO CONFIRM THE GOWIN GENETIC HOMELAND

Confirmation of the Genetic Homeland would usually require the DNA testing of **farmers** with the Gowin surname currently living in the area surrounding Ballantrae. This may not be possible as a Gowan farming community may not remain in Ballantrae. However there may still remain Gowen' (or Gowin etc) living in the surrounding area who can be tested to confirm the link.

Notes on Mr Gowin's distant ancestry

Mr Gowin's Genetic Homeland is found close to Galloway (*land of the foreign Gael*). This area was settled by Hiberno-Norse in the 8th or 9th Century AD. If one is descended from these 'Irish-Viking' settlers one would typically see surname matches at the 25 and 12 marker level to Irish and/or Viking-derived surnames. However, there is a noticeable absence of matches to either Irish or Scandinavian surnames in Mr Gowin's 25 or 12 marker level. This indicates that Mr Gowin's ancestral link to the area is very old and may possibly be associated with the ancient Briton's. Some of his 'Britonic' genetic relatives were undoubtedly influenced by the arrival of these Gaels and adopted Gaelic surnames like McWhirter and McCulloch.

**HAVE YOU HAD A Y-DNA TEST? THEN ORDER YOUR OWN CASE STUDY
BY CONTACTING ME DIRECTLY tyronebowes@gmail.com**

The consultation for your own Case Study is free. At present there is an 80% success rate. If in the unlikely event that I cannot pinpoint your Genetic Homeland I will explain why and I will not charge you.

CHECK LIST FOR DISCOVERING YOUR OWN GENETIC HOMELAND

1. First you must order a Y-DNA37 test from Family Tree DNA. To order follow the 'are you a warrior' link from the [Scottish Origenes homepage](#).
2. Publicprofiler World names database.
3. Census data (earlier the better).
4. Google Earth.
5. Scotland of Old, Clan Names Map.