

A Brittonic¹ Y-DNA Cluster

Steven R. Colson (*stevecolson at comcast dot net*)

In May 2005, I received my full 37-marker Y-DNA test results. Subsequently, a sixth cousin with a shared patrilineal fifth great-grandfather showed similar results. Standard genealogical research traced this Colson patriline back to early 17th Century Lincolnshire, England. My Colson Y-DNA shows the closest affinity with a group of McCorkles and Mitchells, both with known Scottish ancestry. The mystery of this genetic relationship prompted me to broaden my perspective and consider pre-surname relationships. My results fall within the R1bSTR43 cluster identified by John McEwan.² I noticed that eight individuals with 13 repeats at DYS 464a formed a unique sub-cluster within the R1bSTR43 cluster.³ Ewing Surname Y-DNA Project participants Stephen Lee Ewing (SL) and Mark Edwin Ewing (ME) belong in both the R1bSTR43 cluster and the DYS 464a = 13 sub-cluster. A portion of the R1bSTR43 cluster from McEwan's phylogram⁴ is shown in the shaded portion of the diagram in Figure 1, and the arrow points to the branch-point for the sub-cluster that is the subject of this article.

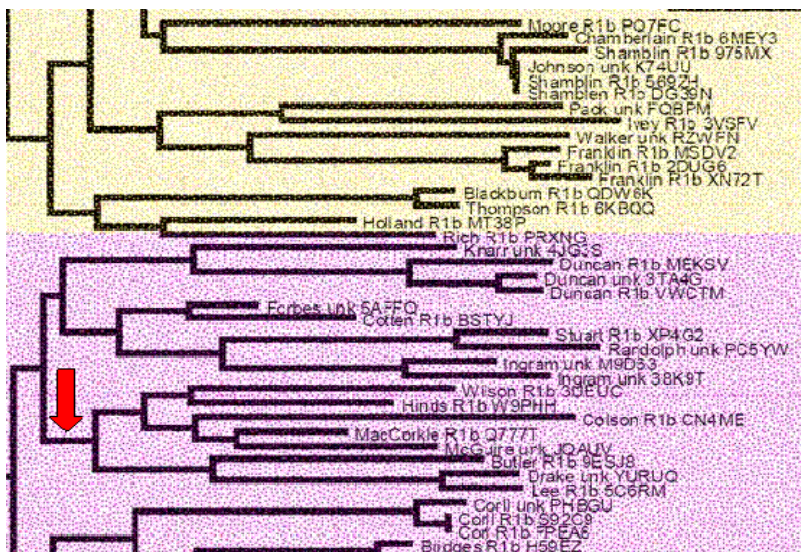


Figure 1. Segment of McEwan R1bSTR43 Cluster

¹ "Brittonic" is an alternate spelling of "Brythonic" and refers to exactly the same thing: p-Celtic speaking native Britons, who lived in much of what is now England before the arrival of the Romans.

² www.geocities.com/mcewanjc

³ I later learned that this sub-cluster is better defined by DYS 590 = 9 in the 67-marker panel.

⁴ To see McEwan's entire phylogenetic diagram from which this portion was excerpted, go to: www.geocities.com/mcewanjc/37strallhapr1bfour.pdf.

R1bSTR 43 appears in lavender and is the eighth cluster down. You will have to blow the PDF up 800% to read the names.

There has been much debate regarding the places of origin for McEwan's clusters, but I will not attempt to address plausible origins for R1bSTR43. Statistical analysis suggests that this cluster originated 6,675 ($\pm 1,059$) years before present, which coincides with the beginning of the Neolithic Period in Britain. R1bSTR43 has wide-spread distribution throughout Europe and is not unique to the British Isles. The distribution of the R1bSTR43 cluster does not fit neatly into either Upper Paleolithic or Mesolithic theories of the settlement of the British Isles. R1bSTR43, along with R1bSTR32, R1bSTR35, R1bSTR42, R1bSTR44, R1bSTR45 and R1bSTR47-Scots, all fall into the grouping (see Figure 2) that has the highest haplotype frequency near the length of the Highland Boundary Fault of Scotland as revealed in Capelli.⁵

393	390	19	391	388	392
13	24	14	10	12	13

Figure 2. Capelli 6-Marker Panel

The 6-marker haplotype shown in Figure 2 is the source of Stephen Oppenheimer's R1b-9 Rox Cluster.⁶ While his haplotype maps are quite useful, the jury is still out on the time of origin for his clusters—I don't see evidence to support a pre-Younger Dryas genetic "fingerprint" on the landscape of the British Isles. Kevin D. Campbell⁷ does a wonderful job of summarizing the suppositions on R1b expounded by both Oppenheimer and Bryan Sykes.⁸ Sykes' Oxford Genetic Atlas Project (OGAP) added four additional markers to the Capelli panel (see Figure 3), where the biggest distinction is made between haplotypes with 29 repeats at DYS 389ii (OGAP2) versus those with 30 repeats at DYS 389ii (OGAP4).⁹ Kevin Campbell considers OGAP4 to be the quintessential Scottish haplotype, while OGAP2 shows diffuse distribution with a slight affinity for Ireland. At face value, it appears that OGAP2 is not of Scottish origin. However, adding DYS 449 to the OGAP2 panel leads to some interesting results.

393	390	19	391	426	388	439	389i	392	389ii
13	24	14	10	12	12	12	13	13	29

Figure 3. Sykes OGAP 10-Marker Panel

In data mining YSearch for 37-marker results, I found over 400 entries that were an exact match for the

⁵ Capelli, Cristian et al. A Y Chromosome Census of the British Isles, *Current Biology*, Vol. 13 (May 27, 2003), pp. 979-984.

⁶ Oppenheimer, Stephen. *The Origins of the British, A Genetic Detective Story: The Surprising Roots of the English, Irish, Scottish, and Welsh*, Carroll & Graf, New York, 2006.

⁷ Campbell, Kevin D. Geographic Patterns of Haplogroup R1b in the British Isles, *J. Genetic Genealogy*, Vol. 1, No. 3 (Spring 2007). Available online at www.jogg.info.

⁸ Sykes, Bryan. *Saxons, Vikings, and Celts: The Genetic roots of Britain and Ireland*, W.W. Norton & Co., New York, 2006. This book was originally published in Britain under the title *Blood of the Isles: Exploring the Genetic Roots of Our Tribal History*, Bantam Press, 2006.

⁹ Family Tree DNA (FtDNA, www.FamilyTreeDNA.com) reports DYS 389ii as the sum of the values for 389i and 389ii. Some other companies report these separately, so if you see values for DYS 389ii in the range 15-18 or so, you must add the number of repeats at 389i to them before comparing results with those reported as FtDNA reports them.

10-marker OGAP2 panel. From this, I removed research modal, nonsensical, non-British Isles, and repetitive surname haplotypes which left only seventy-eight valid entries. Of this 44% were from England, 27% were from Scotland, 24% were from Ireland, and 5% were from Wales. Indeed, OGAP2 does not look Scottish but rather English. Among this group, 29 repeats is the modal value for DYS 449. This is found in McEwan clusters R1bSTR32, R1bSTR35, R1bSTR42, R1bSTR44, and R1bSTR45. However, when looking for DYS 449 = 30, as is found in R1bSTR43, only 15% were from England, 22% were from Scotland, 8% were from Ireland, and 1% were from Wales. Furthermore, when only considering the Scottish group, 81% had DYS 449 = 30. Although R1bSTR43 has widespread distribution, it shows a strong affinity for Scotland when considering only the British Isles.

Stephen Lee Ewing (SL) and Mark Edwin Ewing (ME), share a common third great-grandfather, who was born in Illinois in 1836. This family believes that their Ewing ancestors came from Scotland, although no paper trail makes this link. Along with 95 other men with different surnames, they fall into the R1bSTR43 sub-cluster that shares the DYS 464a = 13 mutation. I will attribute the modal haplotype of this group to a hypothetical person I have named Servanulus (Latinized diminutive for the Cumbric name Servan, meaning [God's] little servant). ME is a perfect 37-marker match with Servanulus, while SL differs only at CDYa. These Ewings, along with Kenneth Frank Doig, are nearest to the Servanulus haplotype. Unfortunately, The Doig Family Society has been unwilling so far to help us with this study by upgrading to 67 markers, but this research is vastly enhanced by having the Doigs as a historical touchstone. Kenneth Doig has documented ancestry back to Walter Doig who was born about 1365 in Kilmadock Parish, Menteith, Scotland.¹⁰ The Doigs state: "The name Dog, or Doig, is derived from the Celtic 'Gille Doc' or servant of Saint Cadoc or Cadog." There are additional surnames that begin to branch directly away from modal, but none understand their ancient ancestry better than the Doigs.

Within the Servanulus Cluster, there is a group of Livingstons and Boggs that have known ancestry in western Fife. The Boggs surname was acquired by one member of the Livingston family after immigration to the Ulster Plantation. The better known Livingstons of Callendar were of Saxon origin and became a prominent family in the area of Stirling. St. Ninians Parish envelops Stirling, especially to the south, and is a region of special interest in this research. The Livingstons of Callendar acquired lands in Kilsyth immediately to the south of St. Ninians Parish. I speculate, but cannot at present prove, that the Livingston members of the Servanulus Cluster acquired their surname while living in close association with the Livingstons of Kilsyth, but they are not related by blood. "Our" Livingstons are currently members of the Clan MacLea DNA Study and believe that they are related to Highland Livingstones. I will not debate this line of reasoning in this paper.

Doune, a town important to the Doig family, is the 18th Century birthplace of Adam Roy and John McArthur. Their descendants are also members of the Servanulus Cluster; however, they are surname singletons and cannot lead us any further in an understanding of our cluster. The Munros, on the other hand, may prove beneficial. There is a large Servanulus sub-cluster of those with the Munro and Monroe surname. In personal correspondence, one Munro takes pride in claiming descent from the Highland Munros. The earliest known ancestry for one member is in the Port of Monteith, while another is much further west in Inveraray. Why would individuals with ties to the Highland Munros appear in the Servanulus Cluster? George Munro, the son of Sir Alexander Munro, was granted the land of Auchinbowie during the late 17th Century. Auchinbowie is located in St. Ninians parish, only a short

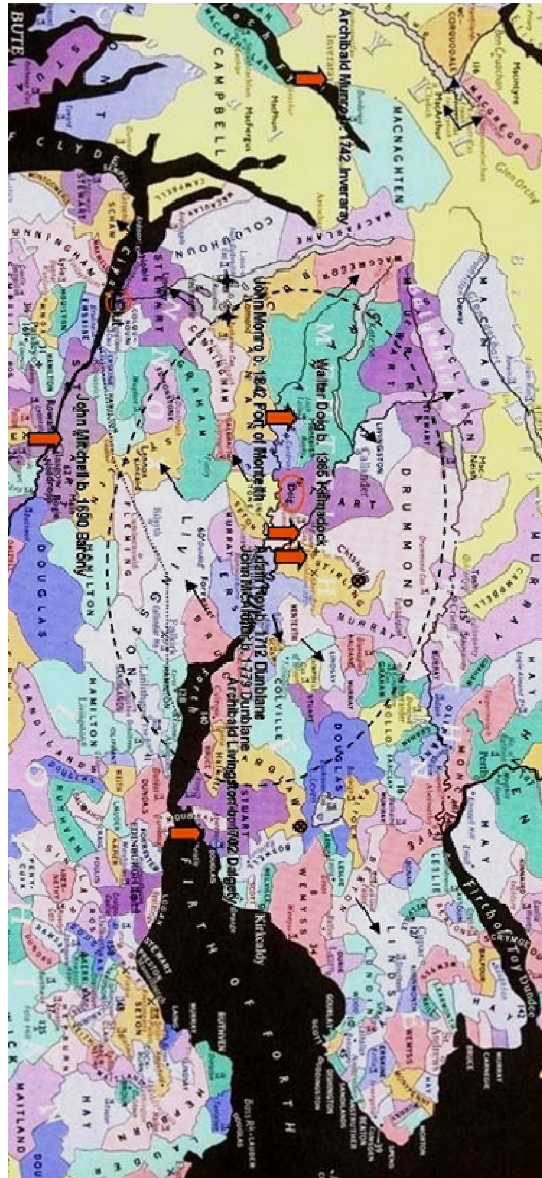
¹⁰ www.doig.net

distance south of Bannockburn. As I have speculated with “our” Livingstons, I also believe that “our” Munros acquired their surname while living among the Munros of Auchinbowie.

There are forty-nine unique surnames that contribute to the Servanulus 37-marker modal. Only the few mentioned above give specific locations of Scottish ancestral homelands. The remainder have predominantly Lowland Scottish surnames, although there are some from the Highland border area of Argyll—there is a McGregor singleton, a McLaren singleton, and a group of McClarens from Ulster that are known by their clan historians as the “U Group MacLarens.” There are several surnames with ancestry that cannot be traced back further than 17th Century Ulster. There is no doubt that these are Ulster Plantation transplants. One member appears to be from the English Pale near Dublin, Ireland. Several have long established genealogies in England, but these do not make up more than 25% of the Servanulus Cluster. There is reason to suspect that my English Colson family left Lowland Scotland during the High Middle Ages with Waltheof of Dunbar, Lord of Allerdale, later to become Abbott of Crowland in England. I have encountered some opposition to my research, as some believe that only those with the same surname can be related. They fail to realize that only those of the highest social standing acquired fixed hereditary surnames during the High Middle Ages, while the majority of English and Lowland Scottish families did not commonly do so until the Late Middle Ages.

Feudal lands of the 15th-16th Century in the Forth-Clyde Isthmus are shown in Figure 4. Black arrows point to surnames found in our cluster, while large arrows point to known locations where ancestors of

Figure 4. Feudal lands, of the 15th-16th Century, in the Forth-Clyde Isthmus



men in the cluster once lived. The area within the dashed ellipse, with its center around Blair Drummond, is the most plausible zone of origin for the Servanulus Cluster. There is the appearance of a Servanulus genetic diaspora along the river straths radiating away from the Stirling area. We are therefore left with the question: From what culture and in what timeframe did Servanulus live? At this point, most theories are merely conjecture, but I hope to give the most reasonable and parsimonious explanation. There should be little doubt that Servanulus lived somewhere in Lennox (modern-day Dunbartonshire), Stirlingshire, or Menteith.

In trying to understand the relationship between members of the Servanulus Cluster, a phylogenetic maximum parsimony tree (MP Tree) was constructed using Fluxus Technology software.¹¹ The 37-marker MP Tree showed some basic structure, but the results are questionable with a few of the surnames. It became apparent that 67-marker Y-DNA tests were critical in sorting out accurate MP Trees and estimating a time to most recent common ancestor (TMRCA). This paper will “shift gears” and transition to exclusive use of 67-marker Y-DNA results. At the time this paper was written, there were twenty-one members (22% of the 37-marker group) with 67-marker results.

The MP Tree (Figure 5) shows three branches arising directly from the Servanulus (modal) node. We

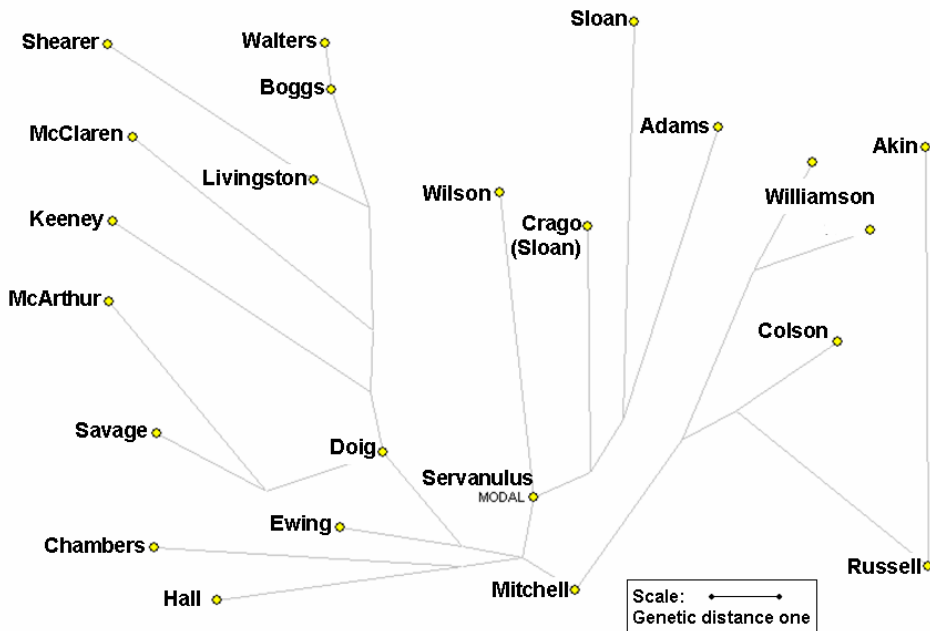


Figure 5. MP Tree showing phylogenetic relationships between descendants of Servanulus.

Only Doig has estimated values for the final 30 of 67 markers, showing a relationship consistent with the 37-marker MP Tree.

¹¹ www.Fluxus-Engineering.com

will not be discussing the branches that take off at approximately 12 o'clock (Wilson) or 2 o'clock (Sloan/Adams) in this tree, but will focus rather on the branch that takes off at 7 o'clock and further divides into branches that include most of the other men in the diagram. Chambers and Hall represent a unique English sub-cluster noticed prominently in the 37-marker group. The Chambers member has known ancestry in Guisborough, Yorkshire, England. Waltheof, Lord of Allerdale gave the gift of a church and manor in Bridekirk Township to the monastery of Guisborough. Recall that I claim that my Colson ancestry is related to Waltheof's subsequent position as Abbott of Crowland. My Colson haplotype is found in the Mitchell branch, where I am among Scottish families. Mitchell has earliest known ancestry in Barony, now the northern suburbs of Glasgow. Mitchell is a common surname in 19th Century Clackmannanshire, while the Mitchells of Arrochymore (near Balmaha) lived on the east side of Loch Lomond. There are two Galbraiths with only 25-marker results that share the DYS 464a = 13 mutation. Inch Galbraith, on the opposite side of Loch Lomond, is the property of the Galbraith "Clan." Doig and the Ewings form the remaining branch that typically shows lower repeat values at CDYa. In earlier 37-marker MP Trees, I referred to the Ewings as the "gatekeepers" of the Livingston/Boggs cluster. Indeed, they are in the same branch, but the Livingston/Boggs cluster appears to be descended from the Doig haplotype. McArthur, with known ancestry in Dunblane, has a haplotype found downstream of Doig, and has known association with the Dunblane diocese. McClarren does not represent the larger known haplotype groups within the Clan McLaren DNA Study. McLaren Clan lands about the feudal lands of the Livingstons of Callander (Auchtoo, which is deeper in McLaren territory, is only 18 km, 11 miles, from Callander).

I used Dean McGee's Y-Utility¹² to estimate the TMRCA for all members of the 67-marker cluster, which is an estimate of how long ago our hypothetical ancestor, Servanulus, lived. I chose the most conservative approach by selecting a 99% probability interval for the TMRCA. The time ranged from 690 to 1,650 years before present (YBP), with a group mean of 1,182 YBP and a standard error of the mean (SEM) of 55 years. If we use the year of my birth as the "present," the cluster originated in 780 AD (± 55 years). At 37 markers, the cluster was 500 years older. At the 99% probability interval, I feel very confident in claiming that Servanulus lived in the 8th to early 9th Century. Divergence in the phylogenetic tree may have come much later for some.

We may now deduce that SL and ME had an ancient ancestor that lived somewhere in the environs of Stirlingshire during the eighth century. The Kingdom of Manau Gododdin had been overthrown about 200 years earlier. There was a long chain of indefinite kingships in the Kingdom of Alt Clut, while the better known Constantine mac Fergus was king of the neighboring Kingdom of Fortriu (Pictland). Regardless of the changes in sovereigns, or "breathing" of territorial boundaries, this land remained the realm of the Britons. Could Servanulus derive from the Britons of Fortrenn (Fortriu) mentioned in Skeen?¹³ The ancient Britons living in the region of the Forth-Clyde Isthmus (Figure 6¹⁴ on the next page), regardless of whose Kingdom they lived under, were descendants of the Damnonii whose territory was first mapped by Ptolemy circa 150 AD.¹⁵ It is from this stock that SL, ME and other

¹² www.mymcgee.com/tools/yutility.html

¹³ Skene, William F. *Celtic Scotland: A History of Ancient Alban*, David Douglas, Edinburgh, 1880.

¹⁴ This map is archived at the University of Texas at Austin and may be found online at: www.lib.utexas.edu/maps/united_kingdom.html.

¹⁵ Mann, J. C. and Breeze, D. J. Ptolemy, Tacitus and the tribes of north Britain, *Proc. Soc. Antiq. Scot*, 117 (1987), pp. 85-91.

members of the Servanulus Cluster, were left with the unusual genetic legacy of having 13 repeats at DYS 464a and 9 repeats at DYS 590.



Figure 6. The British Isles in the age that Servanulus most likely lived.

He likely lived in the region (highlighted) that formed the boundaries between the Kingdoms of Strathclyde, Pictavia, and Northumbria.

I had every hope of better developing my thesis related to Servanulus living and working among the cults of the saints, where his descendants primarily spread due to ecclesiastical work. I soon realized that this was beyond the scope of this paper. The Doigs have some ancient association with Saint Cadog. A church in Alva (near Stirling) was dedicated to Saint Serf¹⁶ (also known as Servanus—not to be confused with my hypothetical Servanulus). Churches along the River Forth have known association with Saint Kentigern, as well as Saint Ninian and Saint Kessog. The Britons of Strathclyde held territory around Loch Lomond, the Lennox and Menteith,¹⁷ and were the earliest Christian converts in northern Britain. In conclusion, there is enough evidence to indicate that the ancestors of SL and ME lived among these Britons, and I hope that this paper is the beginning of a growing body of knowledge for the Ewing Surname DNA Study.

Steven Robert Colson is an eighth great-grandson of Adam Colson and Mary Dustin of 17th Century Reading, Massachusetts. During the Salem Witchcraft Trial hysteria, the Dustin women were accused of being witches but were later acquitted. Steven is an avid amateur genealogist and is now using genetics to further his understanding of his ancient family origin. He is formally educated as a marine biologist and has postgraduate certificates in wetlands restoration. He works in treatment operations for a large municipal water supplier headquartered in Oakland, California.

Steven would like to acknowledge the contributions of others: "The cooperation of many made this paper possible. I am deeply indebted to those that agreed to upgrade their DNA tests to 67 markers. I am also indebted to Clan Ewing in America for giving me a venue to share my knowledge. Special thanks to Alex Williamson for his willingness to share data and Phylip Clusters for comparison."

¹⁶ Watson, William J. *The Celtic Place-Names of Scotland*, 2004 Reprint of 1926 Edition, Birlinn Ltd., Edinburgh, Scotland, 2004.

¹⁷ Ibid.

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