Ewing Surname Y-DNA Project – Article 19

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This is the nineteenth in a series of articles about the Ewing Surname Y-DNA Project. The previous eighteen articles have appeared in the last eighteen issues of this journal, which until this year was called the *Journal of Clan Ewing*. They are also available online through links at the project's web site (*www.EwingFamilyAssociation.org/DNA_Project/index_Y-DNA.html*).

Discussing the Y-DNA Project requires using some terms and abbreviations that will be unfamiliar to beginners. Definitions and explanations of these can be found in the early Y-DNA Project articles and elsewhere on the project's web site. Extensively cross-linked results tables, project participant lineages, group relationship diagrams and network diagrams are also available on the project's web site.

Progress of the Project

The Ewing Surname Y-DNA Project continues to grow. We now have results on 109 Ewings and samples are in the lab undergoing analysis for two others. Another five men have ordered sample collection kits but have not returned the kits to Family Tree DNA (FTDNA)[1] for analysis. Eight participants ordered 67-marker upgrades during the sale FTDNA had earlier this year and we have results on four of these; the remaining 67-marker results are due sometime in the next month or so.

When we started the project a little less than five years ago, we set the goal of analyzing Y-DNA samples from 100 Ewing men. We have now achieved that goal. Most surname projects have found that there are many completely unrelated lines within the same surname. The Ewing project is unusual in that about two-thirds of our participants appear to have a common ancestor within the last few hundred years. Completely unrelated lines are easy to distinguish with Y-DNA results, but it is much harder to reliably distinguish more closely related lines. Our data have allowed us to identify and clearly distinguish several unrelated Ewing lines. We will be able to give any future participant who closely matches the Y-DNA results of the men in Groups 3, 4 and 5 very clear guidance about where to look for their Ewing relatives and ancestors. We also have markers that appear to be characteristic of some sub-groups of Groups 1 and 2, but in general it has been very difficult to distinguish the lines in these two groups because their Y-DNA results are so similar. Theoretically, the way around this problem is to test more markers.

Distinguishing Family Lines

For some time, we have recommended that all Ewing Surname Y-DNA Project participants start with the 37-marker Y-DNA test. The results of this test allow us to determine which of the five Ewing Groups a participant belongs in, and in the case of Groups 3, 4 and 5 it can give us a rather good indication about the specific Ewing family line to which a participant belongs.[2] But most of our participants are in

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[1] *www.FamilyTreeDNA.com*

[2] Recall that our Groups are distinguished strictly on the basis of Y-DNA results and are designated by the numerals from 1 to 5, and that subgroups are determined by conventional genealogy and are designated by lower case letters following the Group number. You can read about how our Groups and sub-Groups are organized at:
dl.GetDropBox.com/u/431003/Results_Intro.pdf.

Ewing Groups 1 and 2, and the subgroups based on conventional genealogy, are so similar genetically that it is impossible to distinguish them on the basis of the 37-marker panel. Groups 1 and 2 differ genetically at only one marker: Group 1 members all have DYS 391 = 11, while Group 2 members all have DYS 391 = 10.[3] The problem in distinguishing family lines within these Groups is that the modal haplotypes are identical for all of the subgroups of Group 1 except for Group 1e, and the modal haplotypes are identical for all of the subgroups of Group 2 except Group 2a. My Y-DNA Project Article 16[4] contains a fair amount of discussion about how testing additional markers might allow us to find markers that distinguish these family groups.

How Useful are 67 Markers?

At the time I wrote Article 16 for the November 2008 issue of the *Journal*, we had 67-marker results on thirteen men in the closely related groups (Groups 1 and 2). Now, we have nineteen and results are pending on one more. I expressed my disappointment and pessimism in Article 16 about how helpful the additional thirty markers might be, and my Scotch blood curdled a bit on calculating how much it would cost us to find informative markers in this panel. As I understood the problem at that time, the thirty additional markers on the 67-marker panel on average have slower rates of mutation than the makers on the 37-marker panel, so it is less likely that we will find mutations in this panel. Further, the Ewing modal for the thirty additional markers exactly matches the R:M222 modal, so I thought not only would the results of the extended panel fail to distinguish Ewing lines from one another, they would fail to distinguish Ewings from other surname groups in R:M222. It seemed to me that this was a test for lunatics and rich guys.[5]

In March, I attended the DNA Conference in Houston and discussed this issue with other surname project administrators. Many of them had had different experiences and had reached very different conclusions from mine. Indeed, some of them were recommending 67-marker panels to everyone who joined their projects. I was persuaded that the slow mutation rates and the fact that the Ewing modal matches the R:M222 modal were not really very good arguments against getting the extra information. Mutations occur at random and finding one that distinguishes a family line is really a matter of luck. And if we are lucky enough to find a distinguishing marker that is relatively slowly mutating, so much the better, because then we will not be as likely to be confused by parallel and back mutations.

In May, FTDNA announced a sale on the upgrade from 37 markers to 67. Usually this costs $99; they offered it for a limited time for $79. I sent an EMail about this to our Y-DNA Project participants and eight of them sprang for the upgrade.

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[3] Or rather, *almost* all. GR has very good conventional genealogy supporting his membership in Group 1b (the descendants of James Ewing of Inch), but he has DYS 391 = 10, which is supposed to be the Group 2 value. There are two possibilities for explaining this. One is that he is mistaken about his conventional genealogy. The other is that in his line there was a parallel mutation from DYS 391 = 11 to DYS 391 = 10.

[4] Ewing, David Neal. Ewing Surname Y-DNA Project Article – Article 18, *J. Clan Ewing,* Vol. 14, No. 4 (November 2008). Available online at *www.EwingFamilyAssociation.org/DNA_Project/DNA_Articles/DNA_Articles/081015%20CEJ%20Y-DNA_WebSite.pdf*.

[5] Being a lunatic, I had already had myself tested, and, because I have been trying to get into his will, I also persuaded 'granddad' George W. Ewing (who qualified for testing on both counts) to be tested.

67-Marker Results in Groups 1 and 2

We now have 67-marker results on thirty-one participants, nineteen of them in the closely related group, though one of these has results on seven markers still pending. You can have a look at the results at *files.getdropbox.com/u/431003/67-markerTable.pdf*. Of the nineteen men in the closely related group, seven have one mutation each. Let us talk about these.

CHY and SA

Two of these participants have the same mutation: SA in Group 2c and CHY in Group 1* both have DYS 534 = 15. You may remember that I made much of 'off-modal matches' in the last Y-DNA Article,[6] and that is what we have here. SA exactly matches Group 2's 37-marker modal, which is the same as the Group 1 modal except at DYS 391. CHY exactly matches Group 1's 37-marker modal except at DYS 459b, where he is the only man in the closely related group to have nine repeats rather than ten, which is the modal value. And the two of them exactly match each other on the additional thirty markers, including the off-modal match at DYS 534 = 15. This means that SA and CHY are genetic distance 2 from one another on the entire 67-marker panel and they have one off-modal match, which is strongly suggestive of a close relationship. This should be very interesting to CHY, who knows his conventional ancestry only a couple of generations back. There is a problem though because of the mismatch between these two men at DYS 391. We have been pretty well forced to theorize that GR in Group 1b has DYS 391 = 10 notwithstanding that he is Group 1 because of a parallel mutation. Are we ready to argue that CHY and SA had a common ancestor with DYS 391 = 10, and CHY has DYS 391 = 11 because of a back mutation? Of course this is possible, but it is not very satisfying. We can explain away all manner of incongruous results by adducing a suitable combination of parallel and back mutations, but I think we should turn to this sort of explanation only as a last resort. I wish I had a better explanation, but I do not know of one at this point. We could argue that both these men have DYS 534 = 15 because of a parallel mutation (that is, by coincidence rather than because they inherited it from a common ancestor), but that is no more satisfying. For now, I am content to be puzzled.

SR and DN

What can we say about the five mutations of which we have found only one each in this group of markers? As of now, we can only say that these mutations must have occurred sometime after the common ancestor of the men we found them in and their relatives who do not have them. For example, if our conventional genealogies are correct, SR and EF in Group 1b happen to be my (I am DN) closest relatives among the Ewing Surname Y-DNA Project participants. EF and DN are seventh cousins, SR is our seventh cousin once removed. To understand the logic that follows, you will need to have a look at the Group 1b Relationship Diagram.[7] Our common ancestor is Alexander Ewing (born 1693/4), the oldest son of James Ewing of Inch. EF has been tested only for 37 markers. DN matches the modal at the thirty additional markers we are talking about and SR has the off-modal marker DYS 534 = 17. This means only that there must have been a mutation in SR's line somewhere in the eight generations since

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[6] Ewing, David Neal. Ewing Surname Y-DNA Project Article – Article 18, *Ewing Family J.*, Vol. 15, No. 2 (May 2009). Available online at *www.EwingFamilyAssociation.org/DNA_Project/DNA_Articles/DNA_Articles/090415%20CEJ%20Y-DNA_WebSite.pdf*.

[7] *files.getdropbox.com/u/431003/Group1bRelationshipDiagram.pdf*.

our lines diverged. In order to determine exactly where this mutation occurred, we would need to test some closer relatives of SR. For example, if SR's second cousin once removed, Gerald E. Ewing, were also found to have DYS 534 = 17, we could conclude that their common ancestor, Albert, born 1831, also had it and the mutation would have to have occurred somewhere between him and Alexander, born 1731. If Gerry did not have DYS 534 = 17, we could conclude that the mutation occurred somewhere between Albert C., born 1869, and SR. In either case, we will have identified a branch marker for SR's line.[8]

TNS and Group 2a

TNS in Group 2a also has a unique mutation among the additional thirty markers, DYS 481 = 26. Refer to the Group 2a Relationship Diagram.[9] You can see that we could narrow down where this mutation had to have occurred if we were to get 67-marker results on his cousins JW, WR and WW, who are progressively more closely related to him. If all four of these men had the marker, then we would know that it occurred in Joshua, born c1704. We know William? did not have it, because we have already tested JN and TW2, and neither of them have it. Similarly, if WR, WW and TNS had it but not JW, then we would know the mutation occurred in Samuel, born c1740. And if WR also did not have it, but both WW and TNS had it, then the mutation must have occurred in Samuel Jr. If only TNS has it, then it must have occurred somewhere between Whitley T., born 1823, and TNS. In this way, we can establish in exactly what part of a family tree we can expect to find a given a branch marker.

67-Marker Results in Groups 3, 4 and 5

We do not yet have any 67-marker results in Group 3, and since we have only two family groups of two men each in this group, it would be hard for me to justify recommending the upgrade unless someone were trying to puzzle out a possible relationship with a branch of a family with a different surname where there was already some 67-marker data.

We have results on two of the three men in Group 5a, the descendants of William Ewing of Rockingham, Virginia. They match one another exactly on the thirty additional markers, and are very different from all of the other Ewings. DR2 in Group 5* is the only Ewing Surname Y-DNA Project participant in Haplogroup G. His 67-marker results are pending and will allow him to more fully evaluate some provocative matches he has found with men who have other surnames than Ewing.

The subgroups of Group 4 are quite distinct from one another genetically. Group 4a consists of six men, three of whom are known to be descended from a William Ewing who was born c1730 and three whose conventional genealogy does not show a connection with the first three, but are very similar to them genetically. One of the descendants (WE2) of William has been tested for 67 markers, as have two of the three that are not known to be descended from him (DH and DS). DH and WE2 match exactly at all 67 markers. DS differs from them at three of the markers on the 37-marker panel and at one additional marker on the 67-marker panel, which suggests that though he has a common Ewing ancestor with DH and WE2, he probably lived sometime before their most recent common ancestor. All three men in

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[8] If we should test EF and find that he also has DYS 534 = 17, we would have to seriously consider that DN is mistaken about his conventional genealogy. Otherwise, we would have to adduce a back mutation in DN's line from John, born 1713/6.

[9] *files.getdropbox.com/u/431003/Group2aRelationshipDiagram.pdf*

Group 4c have been tested at 67 markers, but results are still pending on one of them. They are known relatives (PT and RL2 are sixth cousins) who once thought they were descended from the progenitor of Group 2a, but their results demonstrate that this can not be the case. We have not been able to determine whether their common ancestor, John Ewing, was not the same John Ewing who was the son of William?, or if perhaps he was an adopted son of William?. PT and RL2 are at genetic distance 3 from one another on the 37-marker panel, which is a bit more than we might expect for sixth cousins, but there is only one more difference between them on the thirty additional markers that constitute the 67-marker panel, for a total genetic distance of 4 between them on the 67-marker panel. This illustrates another reason to get the extended panel — if we find a borderline result on the shorter panel, testing more markers may result in revealing that the participants are either closer or more distantly related than we might have thought. We also have 67-marker results on four men in Group 4* and one in Group 4b, but these are inconclusive and I think probably not of enough general interest to analyze here.

Summary

The 67-marker Y-DNA test has the potential to further flesh out our understanding of Ewing genetic genealogy, but its usefulness will depend partly on luck and partly on whether we are able to get enough participation in ordering the test to identify branch points where the markers we find first appear. Is it worth the money? Of course, this is an individual decision. What is more, how much money is involved is a moving target. The cost of Y-DNA testing continues to trend downward, and FTDNA has been offering a couple of pretty good sales each year that can result in considerable savings. As far as I know, there will be no sale in progress at the time this article is published, but sales will probably continue to be offered from time to time. The following table shows the most recent prices:

	Regular price	Sale price
37-marker test	$149	$119
67-marker test	$238	$199
Upgrade 37 to 67 markers	$99	$79

If you are very confident of your conventional genealogy and your 37-marker results do not contradict it, then getting the upgrade will basically just be a helpful contribution to future Ewing researchers, as it is unlikely to tell you anything more about your own genealogy. If you do not know your conventional genealogic connections and are interested in casting as wide a net as possible, including trying to identify potential close relatives among men with different surnames, then you definitely want 67-marker results. If you want to discuss your specific situation and your goals, please do not hesitate to contact me.

To Join or Get More Information

If you are ready to join the project, go to *www.FamilyTreeDNA.com/surname_join.aspx?code=M44915*. Participation by Ewing women is welcome; they can get valuable genealogic information by persuading

a male relative to submit a specimen. For more information, visit the project's web site[10] and the FTDNA web site.[11] If you want to ask questions, call me at +1 505.764.8704 in the evening, or EMail me at *DavidEwing93 at gmail dot com*.

David Neal Ewing has been a member of Ewing Family Association *since 1996 and has served as its Chancellor since 2006. He previously served as Chair of its Board of Directors from 2004-2006. He is also Administrator of the Ewing Surname Y-DNA Project, which he founded in 2004, and he is a regular contributor to the* Ewing Family Journal*. Dr. Ewing has a private practice in clinical geriatric neuropsychiatry in Albuquerque, New Mexico. He received his M.D. degree from the University of New Mexico and did his residency training at the University of Michigan Hospital in Ann Arbor, Michigan.*

Ewing Surname Y-DNA Project Participants Sought

Tammy Mitchell (*info at DowntownInteractive dot com*) is seeking help in supporting the Y-DNA testing of a male in her Canadian Ewing family that she feels is possibly related to participant JM2 in the Ewing Surname Y-DNA Project. Jane Gilbert (*hokiejane at yahoo dot com*) has a standing offer to pay for Y-DNA testing of men who can satisfy her that they are descended from James Ewing of Inch through his son John born 1698/99. William E. Riddle (*Riddle at WmERiddle dot com*) is similarly willing to support Y-DNA testing of descendants of James Ewing of Inch's grandson Squire James (a son of Alexander) who married Mary McKown.

[10] *www.EwingFamilyAssociation.org/DNA_Project/index_Y-DNA.html* .

[11] *www.FamilyTreeDNA.com/public/Ewing*