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Who Was the Father of William Munford Stubbs?

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Objective

The objective of this research session was to use DNA and documentary evidence to discover the father of William Munford Stubbs. William was born 23 June 1858 in Hethel, Norfolk, England, to Ann Munford. He died 31 March 1934 in Parowan, Iron County, Utah. William married Isabelle Margaret Gavin on 18 June 1875 in Parowan.

Limitations

- The research for this session was completed over a three-month period, and the time allotted for work on this project was limited to 2-3 hours per week.
- Autosomal DNA matches that might help solve the objective will be at least 3rd cousins. Because of recombination, some of the descendants of William's father won't show up as matches of a test taker. This limitation will be partially mitigated using DNA from three test takers who share William Munford as their most recent common ancestor (MRCA) and descend from three independent child lines, increasing the coverage of William's genome to 33%.
- Descendants of William's father's other children, if he had any, will be half-cousins because they will have had a different mother than William did. These possible half-relationships need to be considered because these matches may share a lower amount of DNA than full cousins.
- William's father may have had no other children, meaning William's grandfather's descendants will have to be used. They will be 4th cousins, who will share less DNA and have a greater chance of recombination, leaving more cousins who may not show up as matches.

- Descendants of William’s father or grandfather may not have had their DNA tested.
- DNA matches may not have family trees and may not respond to communication, making genealogical records that could corroborate DNA evidence unavailable.

Results Summary

- Summarized the documentary evidence that shows William’s illegitimate birth and the likelihood that he adopted the surname Stubbs later in life. Requested a search for a maintenance order from the Norfolk Records Office. Ann Munford did not appear in the records, indicating that she never petitioned the biological father for support of her son William.
- Created a Gephi network graph that combined DNA data for three test takers, all descendants of William Munford Stubbs through independent child lines. Identified the relevant cluster, then reclustered that cluster. The relevant subcluster included DNA matches who descend from William, his wife Isabelle, and each of their parental lines. Used shared matching to eliminate all matches from the cluster who shared autosomal DNA with matches who descend from the known ancestors. Studied trees for the remaining forty-four matches and discovered some common surnames among three of the matches. No common ancestors for these matches were discovered.
- Analyzed the Y-DNA for Test Taker 1. Sought men with the surnames Dale and Brock (the surnames suggested by Y-DNA testing) who lived within a five-mile radius of Ann’s residence between 1851 and 1861. No Brock men were discovered. A few Dale men of the most likely ages to have been William’s father did live in the area. A study of these men was begun. Tracing these men forward and backward in time in a future research session might lead to a connection to the Y-DNA Dale line in Yorkshire, England or to living people who could be invited to take a DNA test to seek matches to the current test takers.

Documentary Background Information

Prior to commencing the research on any genealogy objective, it is important to analyze existing sources and gather clues that will aid in the research. For a DNA project involving unknown parentage, locating two people in the same time and place is essential. By determining the location of William Munford Stubbs’ mother Ann Munford at the time her son William was conceived, DNA connections can be correlated with the geographical location of possible fathers to narrow down likely candidates. Known facts that will help locate Ann Munford are summarized in table 1 below:

Table 1: A Chronological Timeline of Known Events for Ann Munford

Date	Event	Location	Source
24 April 1833	Birth	Costessey, Norfolk, England	Catholic Baptism Record ^a
28 April 1833	Baptism	Costessey, Norfolk, England	Catholic Baptism Record ^a

1841	Residence	Cossey, Norfolk, England	1841 England and Wales Census ^b
1851	Residence	Heigham, Norfolk, England	1851 England and Wales Census ^c
1851	Baptism into LDS Faith	Wymondham, Norfolk, England	"From the Waves of the Past" Biography ^d
1852	Move	Move to Kennington, London	Minnie Margett's LDS Church File ^e
1854	Move	Move to Norwich (Likely Wymondham Area)	Minnie Margett's LDS Church File ^e
1858	Birth of son William	Hethel, Norfolk, England	Birth Registration ^f
1861	Ann's Residence	Kingston, Wimbledon, Surrey, England	1861 England and Wales Census ^g
1861	Son William's Residence	Kingston, Kingston, Surrey, England	1861 England and Wales Census ^h
1863	Immigration	London to New York	Passenger List ⁱ
1863	Migration	Florence, Nebraska to Salt Lake City, Utah	LDS Pioneer Database ^j
1864	Marriage	Parowan, Utah	"From the Waves of the past Biography ^d
1870	Residence	Parowan, Utah	1870 U.S. Census ^k
1922	Death	Parowan, Utah	Iron County Death Certificate ^l

a. St. Walstan's Roman Catholic Church (Costessey, Norfolk, England), Anna Mumford, birth, 24 April 1833; digital image, *FamilySearch* (<https://familysearch.org> : accessed 25 September 2020), database, profile for Ann Munford, KWJX-FG1.

b. "1841 England and Wales Census," digital image, *FamilySearch* (<https://familysearch.org> : accessed 5 April 2020), Norfolk > Cossey > image 4 > household of Robert Munford; citing PRO HO 107, The National Archives, Kew, Surrey.

c. "1851 England and Wales Census," digital image, *FamilySearch* (<https://familysearch.org> : accessed 5 April 2020), FHL microfilm #101795679, image 723, Ann Munford in the household of Robert Horne; citing PRO HO 107, The National Archives of the UK, Kew, Surrey.

d. "From the Waves of the Past: The Munford History for Ann Munford," *FamilySearch* (<https://familysearch.org> : accessed 13 April, 2020), memory attached to profile for Ann Munford, KWJX-FG1.

e. Church of Jesus Christ of Latter-day Saints, "Minnie Margett's File," card file arranged alphabetically, entry for Ann Munford; image in locked collection, *FamilySearch*

(<https://www.familysearch.org/search/catalog/261771> : accessed 22 February 2023), digital film #8085971, get image number.

f. General Register Office, United Kingdom, Hethel, Humble Yard, Henstead, Norfolk, no. 241, birth registration for William Munford, 23 June 1858; digital copy held by Alice Childs, Highland, Utah.

g. "1861 England and Wales Census," digital image, *FamilySearch* (<https://familysearch.org> : accessed 5 April 2020), FHL microfilm #101795679, image 723, Ann Munford in the household of Robert Horne; citing PRO HO 107, The National Archives of the UK, Kew, Surrey.

h. "1861 England and Wales Census," digital image, *FamilySearch* (<https://familysearch.org> : accessed 5 April 2020), FHL microfilm #101795679, image 723, Ann Munford in the household of Robert Horne; citing PRO HO 107, The National Archives of the UK, Kew, Surrey.

i. "New York, Passenger and Crew Lists (including Castle Garden and Ellis Island), 1820-1957," database with images, *Ancestry* (<https://ancestry.com> : accessed 24 April 2020), entry for Ann Mumford, age 29, arrived New York, New York, 1863 on *SS Amazon* from London; Date > 1863, July > 20 > image 5, entry 201.

j. "Pioneer Database, 1847-1868," database, *The Church of Jesus Christ of Latter-Day Saints* (<https://history.churchofjesuschrist.org/overlandtravel/pioneers/41450> : accessed 25 September 2020), profile for Ann Munford, Samuel D. White Company, 1863.

k. 1870 U.S. Census, Iron County, Utah, population schedule, Parowan, page 291 (stamped), page 17 (penned), dwelling 124, family 122, Ann Gunn in the household of George Gunn; digital image, *FamilySearch* (<https://familysearch.org> : accessed 25 September 2020); citing NARA microfilm publication M593, Roll 1610.

l. Iron County, Utah, death certificate no. 36 (30 April 1922), Ann Munford Gunn; digital image, *FamilySearch* (<https://familysearch.org> : accessed 26 April 2020), "Utah Death Certificates, 1904-1964," Iron > Parowan > 1922 > image 11.

Ann Munford lived in Heigham Hamlet in the city of Norwich, Norfolk, England at the time the 1851 census was enumerated.¹ Heigham is a historical place that no longer exists. An 1851 map overlaying a modern map shows that Heigham was near modern-day Heigham Grove, Norwich, Norfolk:

¹ "1851 England and Wales Census," images, *FindMyPast* (<https://search.findmypast.co.uk/record?id=GBC/1851/4278397/00723&parentid=GBC/1851/0000750660> : accessed 5 April 2020), Hamlet of Heigham, city of Norwich, p. 19, household 104, Ann Munford in the household of Robert Horne; citing PRO HO 107, The National Archives of the UK, Kew, Surrey.

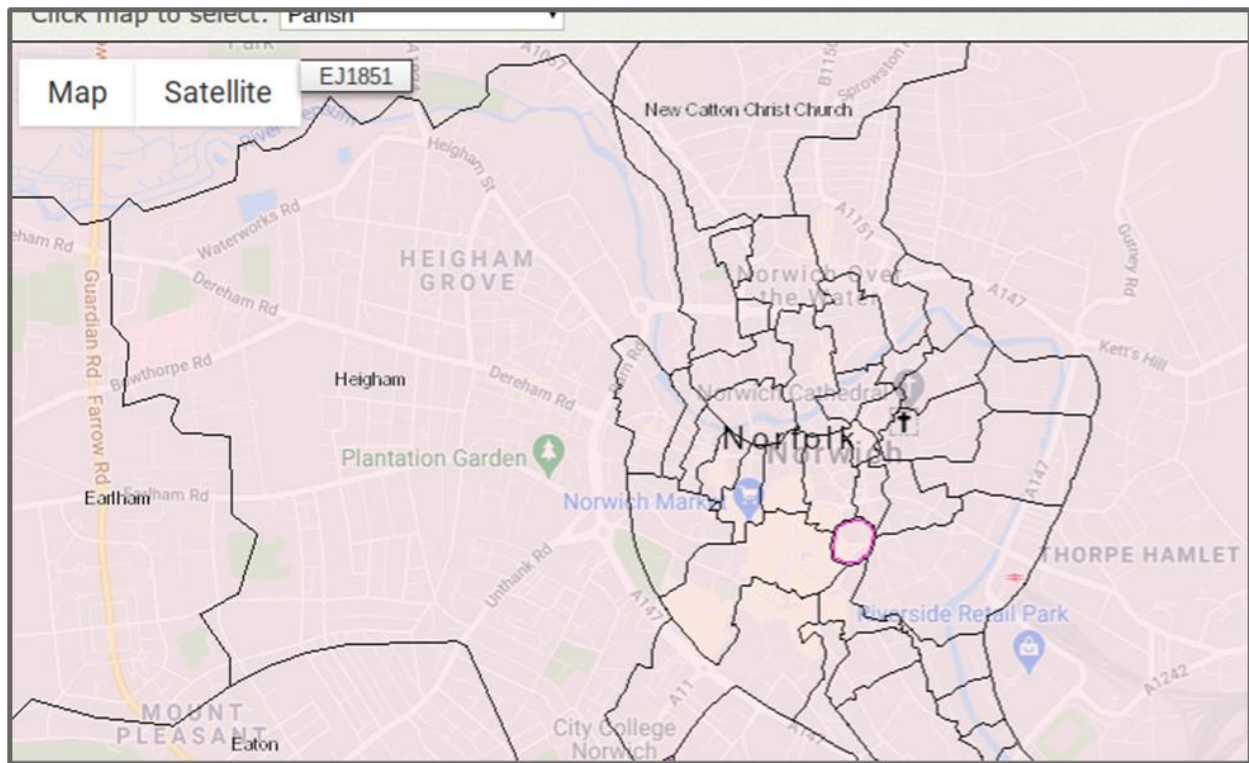


Figure 1. An 1851 Map Overlaying a Modern Map of the Heigham Area

As can be seen on the modern map below, Heigham is near Ann’s birthplace of Costessey. Ann’s parents were living in Wymondham, about ten miles away, in 1851.² They probably migrated there around same the time Ann secured work as a servant near their previous home in Costessey. Ann, her parents, and several family members were baptized as members of the Church of Jesus Christ of Latter-day Saints in the Wymondham branch in 1851.³ Church records show Ann’s removal to London in 1852

² “1851 England and Wales Census,” images, *FindMyPast* (<https://search.findmypast.co.uk/record?id=GBC/1851/4278398/00912&parentid=GBC/1851/0000767184> : accessed 1 May 2023), Wymondham Parish, Town of Wymondham, p. 467, household 107, Robert Munford; citin PRO HO 107, the National Archives of the UK, Kew, Surrey.

³ "From the Waves of the Past: The Munford History for Ann Munford," *FamilySearch* (<https://familysearch.org> : accessed 13 April 2020), memory attached to profile for Ann Munford, KWJX-FG1. And Church of Jesus Christ of Latter-day Saints, "Minnie Margett's File," card file arranged alphabetically, entry for Ann Munford; image in locked collection, *FamilySearch* (<https://www.familysearch.org/search/catalog/261771> : accessed 22 February 2023), digital film #8085971.

and back to the Wymondham area in 1854.⁴ In 1858, Ann's son William was born in Hethel.⁵ His birth record states that she was a resident of Hethel, just over three miles from Wymondham.

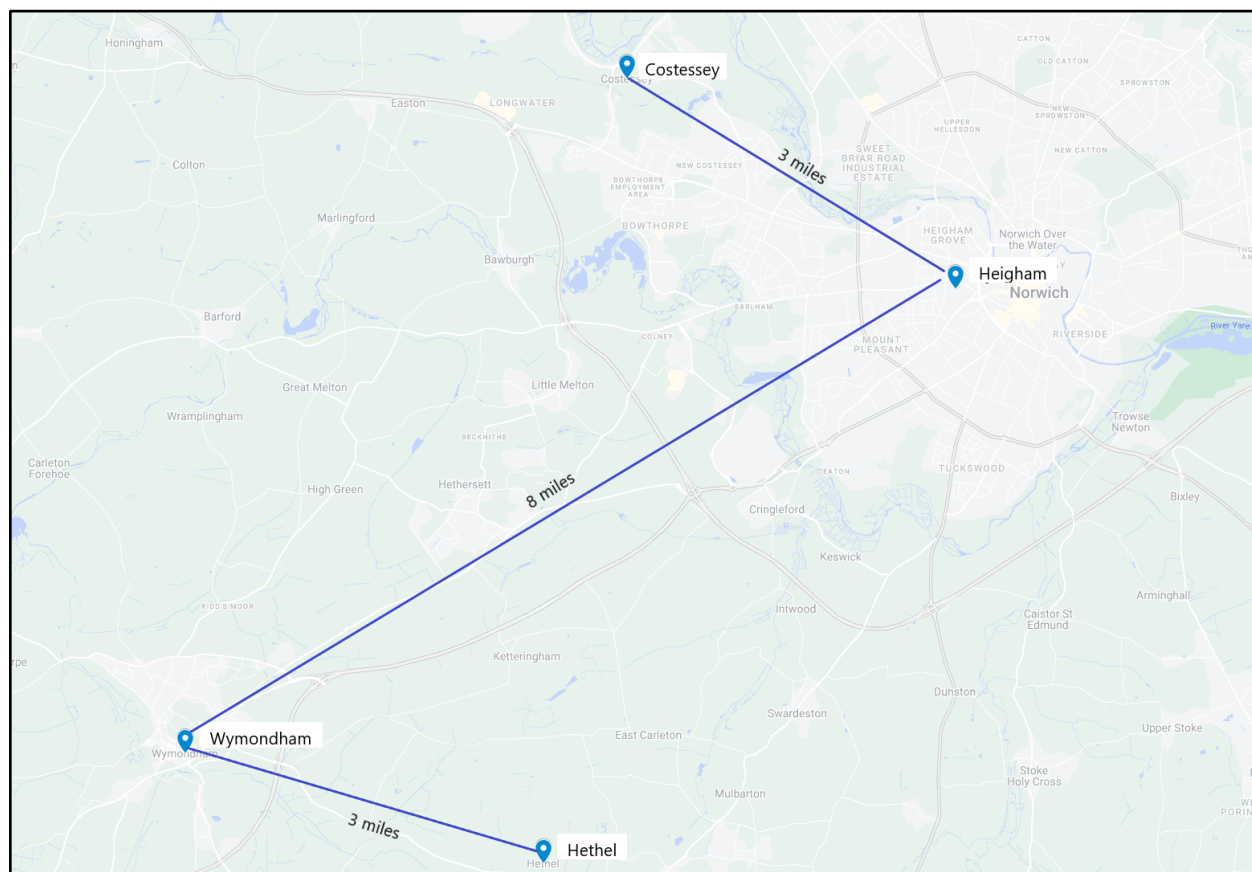


Figure 2. The Norfolk County Residences of Ann Munford and her Parents

The analysis of Ann Munford's and her parents' residences point to the hypothesis that she could have been living in the Wymondham/Hethel area the year prior to William's birth. Her reported membership in the Wymondham LDS Branch community, her parents' residence in Wymondham, and her 1858 residence in Hethel all support this hypothesis.

⁴ Church of Jesus Christ of Latter-day Saints, "Minnie Margett's File," card file arranged alphabetically, entry for Ann Munford; image in locked collection, *FamilySearch* (<https://www.familysearch.org/search/catalog/261771> : accessed 22 February 2023), digital film #8085971.

⁵ General Register Office, United Kingdom, Hethel, Humble Yard, Henstead, Norfolk, no. 241, birth registration for William Munford, 23 June 1858; digital copy held by Alice Childs, Highland, Utah.

Another item to note from existing records is William's surname. No surname is listed for William on his birth record. No father is listed either, but Ann Munford of Hethel is listed as his mother:

Superintendent Registrar's District <u>Henstead</u> 230										
Registrar's District <u>Humble Yard</u>										
1858. BIRTHS in the District of <u>Humble Yard</u> in the County of <u>Norfolk</u>										
No.	When Born.	Name, if any.	Sex.	Name and Surname of Father.	Name and Maiden Surname of Mother.	Rank or Profession of Father.	Signature, Description, and Residence of Informant.	When Registered.	Signature of Registrar.	Optional Name if added after Registration of Birth.
241	Twenty third June 1858	William	Boy		Ann Munford		Ann Munford Mother Hethel	Twenty first July 1858	Shadrach Betchell Registrar	

Figure 3. General Register Office, United Kingdom, Hethel, Humble Yard, Henstead, Norfolk, no. 241, birth registration for William Munford, 23 June 1858; digital copy held by Alice Childs, Highland, Utah.

On the 1861 England and Wales census, William's surname is listed as Munford:

2			Thomas Munford	Son	17
			William	Y. Son	2

Figure 4. "1861 England and Wales Census," digital image, *FindMyPast* (<https://findmypast.com> : accessed 5 April 2020), Wimbledon, p. 11, William Munford in the household of Robert Munford; citing PRO HO 107, The National Archives of the UK, Kew, Surrey.

When immigrating to the United States, Ann was listed as a spinster, and her son William was listed with her surname, Mumford [*sic.*].

200	Ann Mumford.	29	Female Spinster
	Wm.	4	Male

Figure 5. "New York, Passenger and Crew Lists (including Castle Garden and Ellis Island), 1820-1957," database with images, *Ancestry* (<https://ancestry.com> : accessed 24 April 2020), entries for Ann and Wm. Mumford, ages 29 and 4, arrived New York, New York, 1863.

William was listed on the 1870 census with the surname of his stepfather, George Gunn:

6	124	122	George Gunn	44	Male	Parowan
7			" Ann	37	Female	Lecky house
8			" Ann	13	Female	at home
9						

Figure 6. 1870 U.S. Census, Iron County, Utah, population schedule, Parowan, page 291 (stamped), page 17 (penned), dwelling 124, family 122, William Gunn in the household of George Gunn; digital image, *Ancestry* (<https://ancestry.com> : accessed 25 September 2020) ; citing NARA microfilm publication M593, Roll 1610.

The 1880 U.S. census is the first record on which William’s surname is listed as Stubbs, or Stubs, as it is spelled on this record. His initial “M” likely stands for Munford. Reordering of first and middle names and initials is common on historical records:

102	102	Stubs M. William	M	Ab	21	
		— M. Isabel	W	F	23	Wife
		— Walter	M	Ab	2	Son
		— G. Jasper	M	Ab	8/12	Oct Son

Figure 7. 1880 U.S. Census, Iron County, Utah, population schedule, Parowan, enumeration district (E.D.) 21, page 358 (stamped), page 11 (penned), dwelling 102, family 102, M. William Stubbs; digital image, *FamilySearch* (<https://familysearch.org> : accessed 16November 2020); citing NARA microfilm publication T9, Roll 1336.

The sudden appearance of the surname Stubbs in 1880 fits with family lore that William may have adopted that surname later in life. So, the identification of William’s unknown father will involve identifying a possible surname and then narrowing down potential candidates with that surname.

DNA Background Information

Y-DNA is passed down almost unchanged from father to son for many generations. Having the results of a Y-DNA test could point to a surname for William Munford Stubbs’ father, which could then be used in further DNA analysis. Y-DNA test results for William Stubbs’ great-great-grandson (Test

Taker 1) revealed two surnames: Dale and Brock.⁶ The closest DNA match, has a genetic distance of four at 111 markers.⁷ The FTDNA TMRCA time predictor estimates that the common ancestor between these matches would have been born around 1700 (range: 1500-1850).⁸ The earliest known ancestor for this match was born in Great Britain in 1604 and died in Virginia in 1646.⁹ With a family who immigrated to America over two hundred years prior to William's birth in England, it is likely that the MRCA falls into the earlier part of the possible range for a common ancestor.

Finding the common ancestor for these matches could be a long and involved process. However, seeking autosomal DNA matches with these surnames might lead to a connection. Tracing families with the Dale or Brock surnames who lived near the Munford family in Wymondham could reveal patrilineal descendants who could be invited to take a Y-DNA test to see if they are closer matches to Test Taker 1.

In addition to Y-DNA passed down along the male line, all humans inherit autosomal DNA (atDNA) that can be used to help confirm relationships on the family tree and to discover unknown ancestors. Autosomal DNA is made of twenty-two pairs of chromosomes. One of each pair comes from the subject's mother, and the other comes from the subject's father. Before being passed down to the next generation, atDNA undergoes recombination, which means two copies of the chromosomes might exchange one or more pieces of DNA. This process makes it challenging to determine the origin of inherited segments, but the results of atDNA testing can be used to estimate ethnicity and to identify segments of DNA shared by two or more individuals. The amount of atDNA shared is used to determine possible genealogical relationships.¹⁰ Because of recombination, atDNA is only useful in determining unknown ancestors about six generations removed from the test taker. Using the atDNA for test takers

⁶ "Y-DNA Matches for Test Taker 1, Kit No. 951855," DNA matches at the Y-111, Y-67, and Y-37 Test Levels, FamilyTree DNA (<https://www.familytreedna.com/my/ydna/matches/detail-view> : accessed 23 February 2023),

⁷ "Y-DNA Matches for Test Taker 1," database report, FamilyTree DNA (<https://www.familytreedna.com> : accessed 21 February 2023), [Private] matching Test Taker 1 at a genetic distance of four steps on 111 markers.

⁸ "Most Recent Common Ancestor Time Predictor based on Y-STR Genetic Distance," FTDNA Tip Report for Test Taker 1, who matches [Private] at a genetic distance of four on 111 markers, time prediction 1700 CE (1500-1850 CE), *FamilyTree DNA* (<https://ftdna.com> : accessed 21 February 2023).

⁹ *FamilyTreeDNA*, (<https://tree.familytreedna.com/family-tree/family-view?sharedView=96be478b-83dc-4aa4-b026-b87c29cb7122> : accessed 9 May 2023), family view for [Private], earliest ancestor Thomas Redding Dale (1866-1928). And *FamilySearch* (<https://www.familysearch.org/tree/pedigree/fanchart/K8GF-KL7> : accessed 9 May 2023), fan chart for Thomas Redding Dale, PID # K8GF-KL7. The most recent ancestor who lived in England was Nicholas Edward Dale (1601-1647), PID #MGK7-MR5.

¹⁰ Blaine T. Bettinger and Debbie Parker Wayne, *Genetic Genealogy in Practice*, (Arlington, Virginia : National Genealogical Society), 7.

who descend from independent child lines of the research subject can maximize the coverage of the research subject's genome and help discover relevant matches for the research project.

Autosomal DNA from three test takers was used for this research project. Each of them descends from a different child of William Munford Stubbs and Isabelle Margaret Gavin (see figure 6). Four additional atDNA matches descending from the Most Recent Common Ancestral Couple (MRCAC) were also identified. The amounts of atDNA shared between the test takers and each of the matches was then analyzed to determine whether the amounts of shared atDNA fit with their traced relationships.

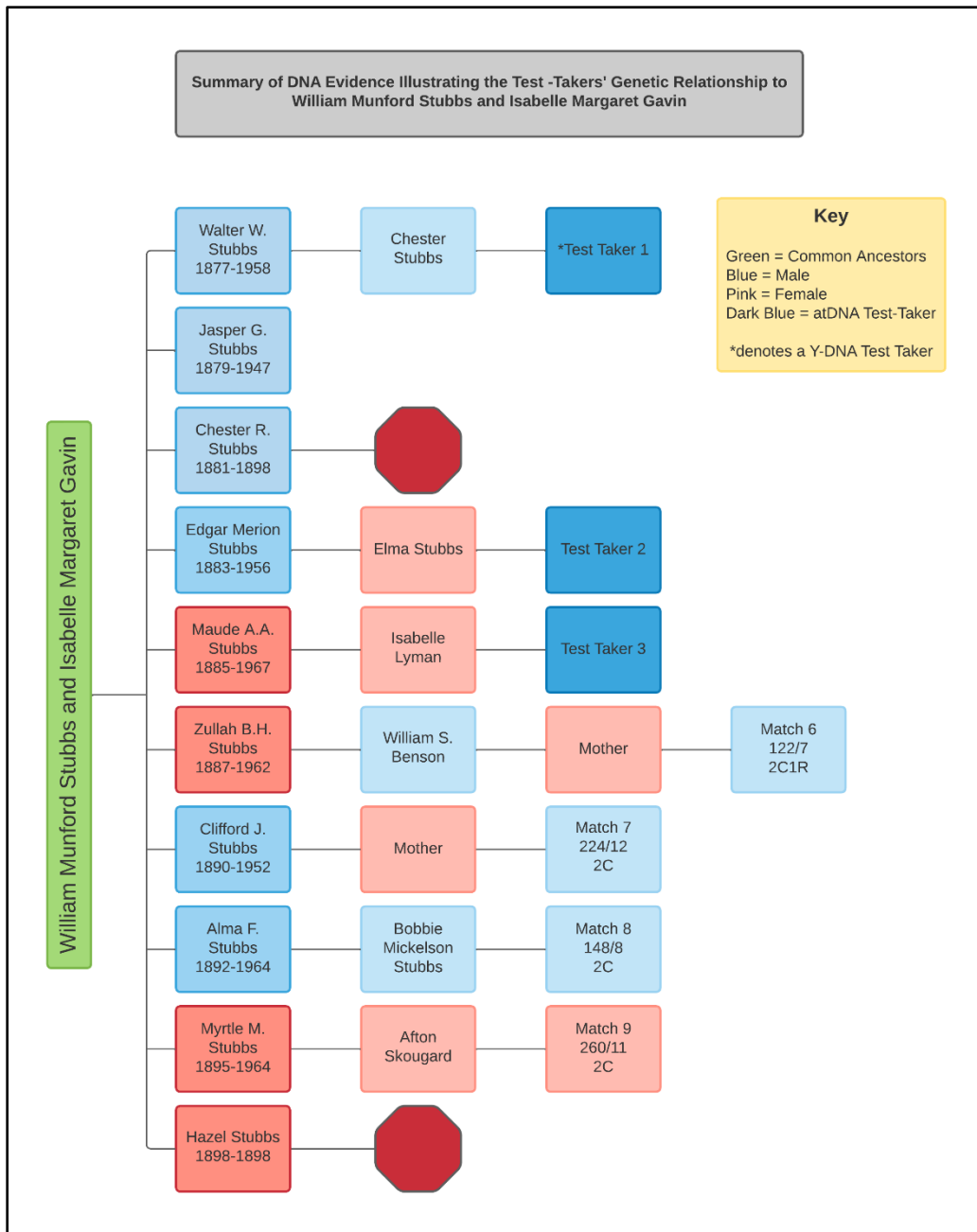


Figure 8. A Genetic Network of DNA Matches who Descend from William Munford Stubbs and Isabelle Margaret Gavin

The *Shared cM Project* is a tool that provides relationship probabilities for the amount of atDNA shared by two individuals, measured in centimorgans (cM).¹¹ Analyzing the amounts of shared atDNA

¹¹ Blaine Bettinger and Johnny Perl, "The Shared cM Project 3.0 tool v4," DNA Painter (<https://dnainter.com/tools/sharedcmv4> : accessed 6 November 2020), average shared cM for 2C and 2C1R.
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between the test takers and the other descendants of William Munford Stubbs using this tool concluded that the amount of shared atDNA between the matches fits within the predictions set forth by the *Shared cM Project* for their traced relationships (see table 2). Each amount of shared atDNA falls within one standard deviation of the expected mean for the traced relationship. Their biological descent from William Munford Stubbs and Isabelle Margaret Gavin and relationships to one another are statistically possible.

Table 2: DNA Matches Descending from MRCAC William Munford Stubbs and Isabelle Gavin

Test Taker	DNA Match	Traced Relationship	Shared cM	Expected Mean	Distance from Mean
Test Taker 1	Match 6	2C1R	116	122	-0.10 SD
Test Taker 2			166		+0.75 SD
Test Taker 3			122		0.00 SD
Test Taker 1	Match 7	2C	164	229	-0.75 SD
Test Taker 2			196		-0.38 SD
Test Taker 3			224		-0.06 SD
Test Taker 1	Match 8	2C	174	229	-0.64 SD
Test Taker 2			221		-0.09 SD
Test Taker 3			148		-0.94 SD
Test Taker 1	Match 9	2C	182	229	-0.55 SD
Test Taker 2			196		-0.33 SD
Test Taker 3			260		+0.36 SD

Histogram Data: Blaine Bettinger and Johnny Perl, “The Shared cM Project 3.0 tool v4,” DNAPainter (<https://dnainter.com/tools/sharedcmv4> : accessed 29 April 2023).

DNA Data: “DNA Matches for Test Taker 1, Test Taker 2, and Test Taker 3,” database reports, *AncestryDNA* (<https://ancestry.com> : accessed 29 April 2023).

Genetic relationships between the test takers and each of the other descendants of William Munford Stubbs shown above provide evidence that William Munford Stubbs is indeed the test takers’ great-grandfather. These matches create a genetic network that can be used to discover the identity of William’s unknown father. The unknown father is the test takers’ great-great-grandfather. Accordingly,

the test takers and each of their second cousins illustrated in Figure 1 above will have inherited approximately 6.25% (about 425 cM) of William's father's DNA.¹² Other descendants of William's unknown father will be 3rd-4th cousins with the second cousins in the genetic network created above and will likely share an average of 35-73 cM of inherited DNA with the test takers and their second cousins on the Stubbs line.¹³

Analyzing the shared matches between the test takers and these second cousins will identify some of the 3rd and 4th cousins, extend the genetic network, and possibly lead to the unknown biological father of William Munford Stubbs.

Findings and Analysis

Maintenance Orders at the Norfolk Record Office

William Munford appears to have been an illegitimate child. The Poor Law Amendment Act in 1844 allowed women of illegitimate children to apply to the petty sessions courts for maintenance from the father.¹⁴ However, petty session records for Wymondham held at the Norfolk Record Office date from the mid-1970s only.¹⁵ A research assistant from the Norfolk Records Office suggested searching the Norfolk Quarter Session records as well as the Guardians of the Poor records for both the Forehoe Union (Wymondham) and Henstead Union (Hethel).¹⁶ These records are not online. A search was requested and performed by a volunteer at the records office and no mention of Ann Munford appears from June 1858 through the beginning of 1859.¹⁷ She apparently did not petition William's father for support. The

¹² "Free DNA and Relationship Chart," digital image download, *Legacy Tree Genealogists* (<https://www.legacytree.com/dna-relationship-chart> : accessed 14 November 2020), 6.25% DNA inheritance from great-grandparent.

¹³ Blaine Bettinger and Johnny Perl, "The Shared cM Project 3.0 tool v4," *DNA Painter* (<https://dnapainter.com/tools/sharedcmv4> : accessed 5 October 2020), average shared cM for 3rd -4th cousins.

¹⁴ "Illegitimacy," *Norfolk Record Office* (<https://www.archives.norfolk.gov.uk/help-with-your-research/family-history/parishes-and-churches/illegitimacy> : accessed 25 April 2023).

¹⁵ Gordon Blacklock, Norwich, Norfolk, England (norfrec@norfolk.gov.uk), to Alice Childs, e-mail, 14 April 2023, "RE: Search Request for Petty Sessions Records"; privately held by Childs, (alice@alicechilds.com), Highland, UT.

¹⁶ Gordon Blacklock, Norwich, Norfolk, England (norfrec@norfolk.gov.uk), to Alice Childs, e-mail, 14 April 2023, "RE: Search Request for Petty Sessions Records"; privately held by Childs, (alice@alicechilds.com), Highland, UT.

¹⁷ Theresa Palfrey, Norfolk Record Office (theresa.palfrey@norfolk.gov.uk), to Alice Childs, e-mail, 4 May 2023), "Re: Search Request for Petty Sessions Records", privately held by Childs, (alice@alicechilds.com), Highland, UT.

absence in documents of any mention of William's father necessitates further analysis of DNA test results in search of the identity of the unknown father.

A Genetic Network for William Munford Stubbs' Descendants

Discovering a group of matches for the three test takers who all descend from William Munford Stubbs' paternal line could reveal the identity of his unknown father. An effective way to discover such a group is to use a network graph. Network graphs cluster DNA matches based on shared DNA. A network graph also shows connections between clusters, which can be helpful for examining groups of related clusters.

The *Ancestry* DNA match data for each of the three test takers was gathered using the DNAGedcom Client and a network graph was created using Gephi, an open-source network graph program. Combining the data for all three test takers into one graph allowed for the quick identification of relevant cluster.¹⁸ Cluster 3 included DNA matches who matched all three of the test takers.

Reclustering Cluster 3 resulted in five subclusters. The initial hypothesis was that these five subclusters could represent DNA matches descending from William Stubbs and his wife Isabelle Gavin, and clusters of matches who descend from each of their parental lines. Cluster analysis revealed results that were quite different from what was expected.

¹⁸ Laura Murray, "Network Graph for Test Taker 1, Test Taker 2, and Test Taker 3 using Ancestry DNA data," digital diagram created with *Gephi*, files gathered with *DNAGedcom Client* using 30-400 cM shared DNA, gathered 1 February 2023, privately held by Alice Childs, Highland, Utah.

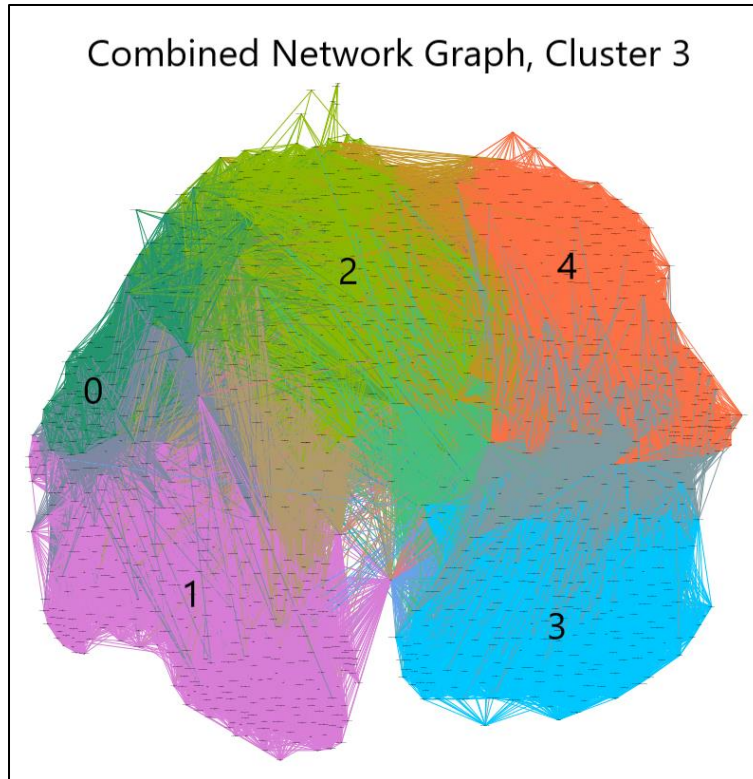


Figure 9. Combined Network Graph for Test Taker 1, Test Taker 2, and Test Taker 3, Subclustering of Cluster 3

Subcluster 3-2 included atDNA matches descending from William’s maternal line—including his grandparents and his step-siblings—and his wife’s parents. Cluster 3-0 was related to cluster 3-2, with a few matches descending from William’s maternal grandparents, but with most matches descending from William’s mother and stepfather—the Gunn line. Subclusters 3-1, 3-3, and 3-4 were not directly related to William’s family at all. They included matches descending from the ancestors of two of William’s children’s spouses. They may have been included in the cluster because these people all lived in Parowan, Utah, where many of the founding families intermarried, resulting in complicated relationships among descendants (see figure 10).

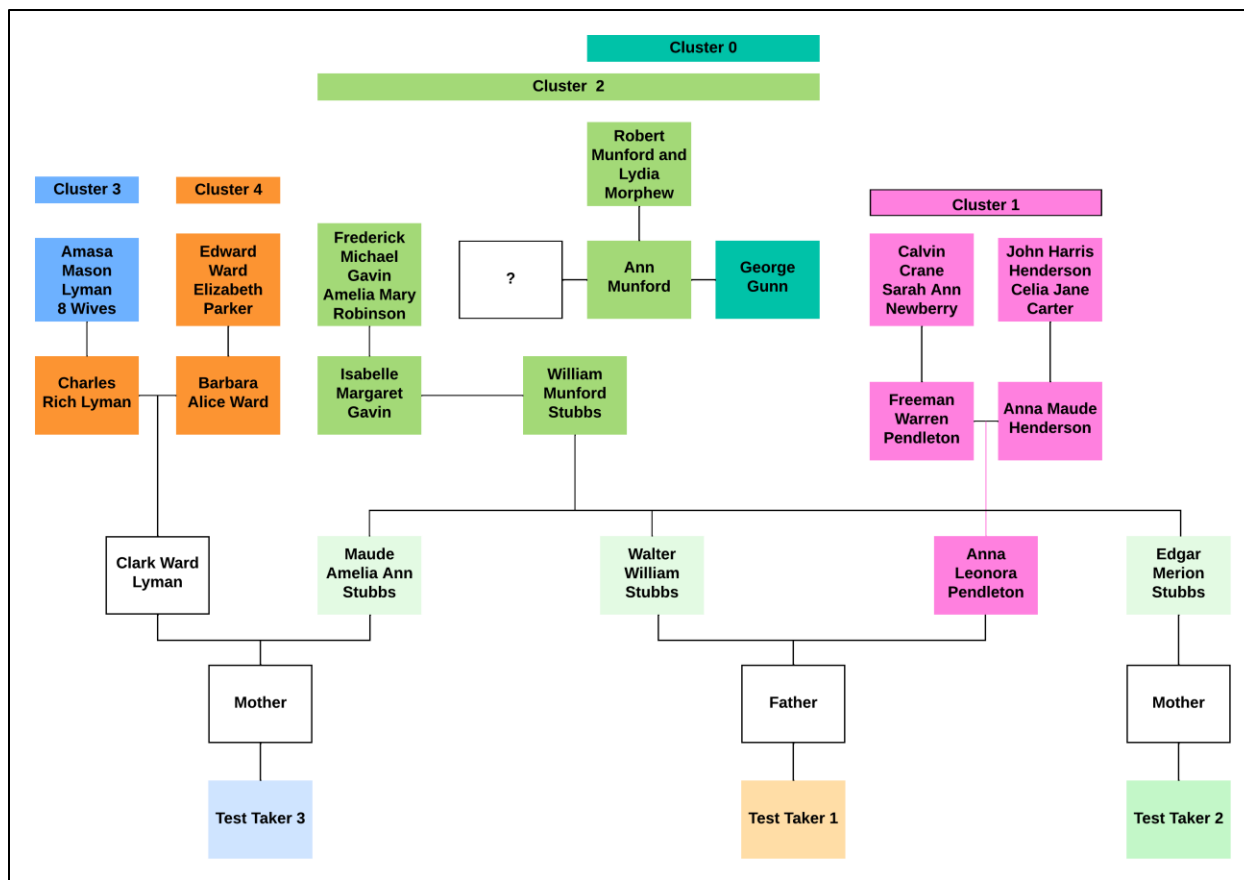


Figure 10. MRCA Couples for Subclusters of Cluster 3

If subcluster 3-2 includes atDNA matches who descend from multiple generations of both William and his wife Isabelle's families, then perhaps atDNA matches who descend from William's unknown paternal line would also appear in this cluster.

Subcluster 3-2 is comprised of 274 atDNA matches. Many do not have trees associated with their *Ancestry* DNA test results. A strategy was needed to methodically narrow the possible relevant matches down to those who might have descended from William's unknown father's line. Hypothetically, atDNA matches identified as descending from the Munford, Gunn, or Gavin lines would not share atDNA with matches descending from the unknown father's line. Matches who share atDNA with a person that had been identified as descending from one of these known lines were eliminated one by one until the pool of unidentified matches from subcluster 3-2 was narrowed down to forty-four. Reclustering those forty-four matches to see if any of them would cluster together and perhaps reveal more information about the unknown father's line did not result in distinct clusters.

Seeking Pedigree Triangulation

DNA matches who appear in the same genetic network can share a common ancestor. Seeking the common ancestor between two or more DNA matches is known as pedigree triangulation. By examining the trees of the forty-four matches identified in cluster 3-2 of the combined network graph, it might be possible to discover a paternal ancestor for William Munford Stubbs.

Studying the trees attached to the atDNA test results for the DNA matches of interest in cluster 3-2 resulted in two common surnames among three matches: Neave and Blythe (see figure 11).¹⁹ Each of these ancestors lived in Norfolk County, England. Some lived in Wymondham and some in neighboring Wicklewood. Building back the DNA matches trees to the mid-1700's did not result in the discovery of common ancestors for the matches.²⁰ Time did not permit further study of the DNA matches in subcluster 3-2. Future research will be dedicated to building out the trees of additional matches and contacting matches without trees in search of common ancestors for the cluster. A connection to the tree of the closest Y-DNA match will also be sought. His paternal line was in Virginia for many generations, starting with Nicholas Edward Dale, who was born in Hutton Buscel, Yorkshire, England, in 1601 and died in Jamestown, Virginia, on 18 February 1647.²¹

¹⁹ Match 31, "Geary Family Tree," public member tree, *Ancestry* (<https://www.ancestry.com/family-tree/tree/160618995/family/pedigree> : accessed 9 May 2023). Match 32, "Vincent Laurendau Family Tree," public member tree, *Ancestry* (<https://www.ancestry.com/family-tree/tree/160919343/family/pedigree?cfpid=392102007996> : accessed 9 May 2023). [Private], "D J Brown 2023," public member tree, *Ancestry* (<https://www.ancestry.com/family-tree/tree/105733786/family/pedigree?cfpid=180049871934> : accessed 9 May 2023), tree attached to *Ancestry* DNA test results for Match 33.

²⁰ Alice Childs, AG, "William Stubbs DNA Tree," private member tree, *Ancestry* (<https://www.ancestry.com/family-tree/tree/170442557/family?cfpid=232483933774> : accessed 9 May 2023), profiles for Match 31 (living), Match 32 (living), and Match 33 (living).

²¹ *FamilyTreeDNA*, (<https://tree.familytreedna.com/family-tree/family-view?sharedView=96be478b-83dc-4aa4-b026-b87c29cb7122> : accessed 9 May 2023), family view for [Private], earliest ancestor Thomas Redding Dale (1866-1928). And *FamilySearch* (<https://www.familysearch.org/tree/pedigree/fanchart/K8GF-KL7> : accessed 9 May 2023), fan chart for Thomas Redding Dale, PID # K8GF-KL7. The most recent ancestor who lived in England was Nicholas Edward Dale (1601-1647), PID #MGK7-MR5.

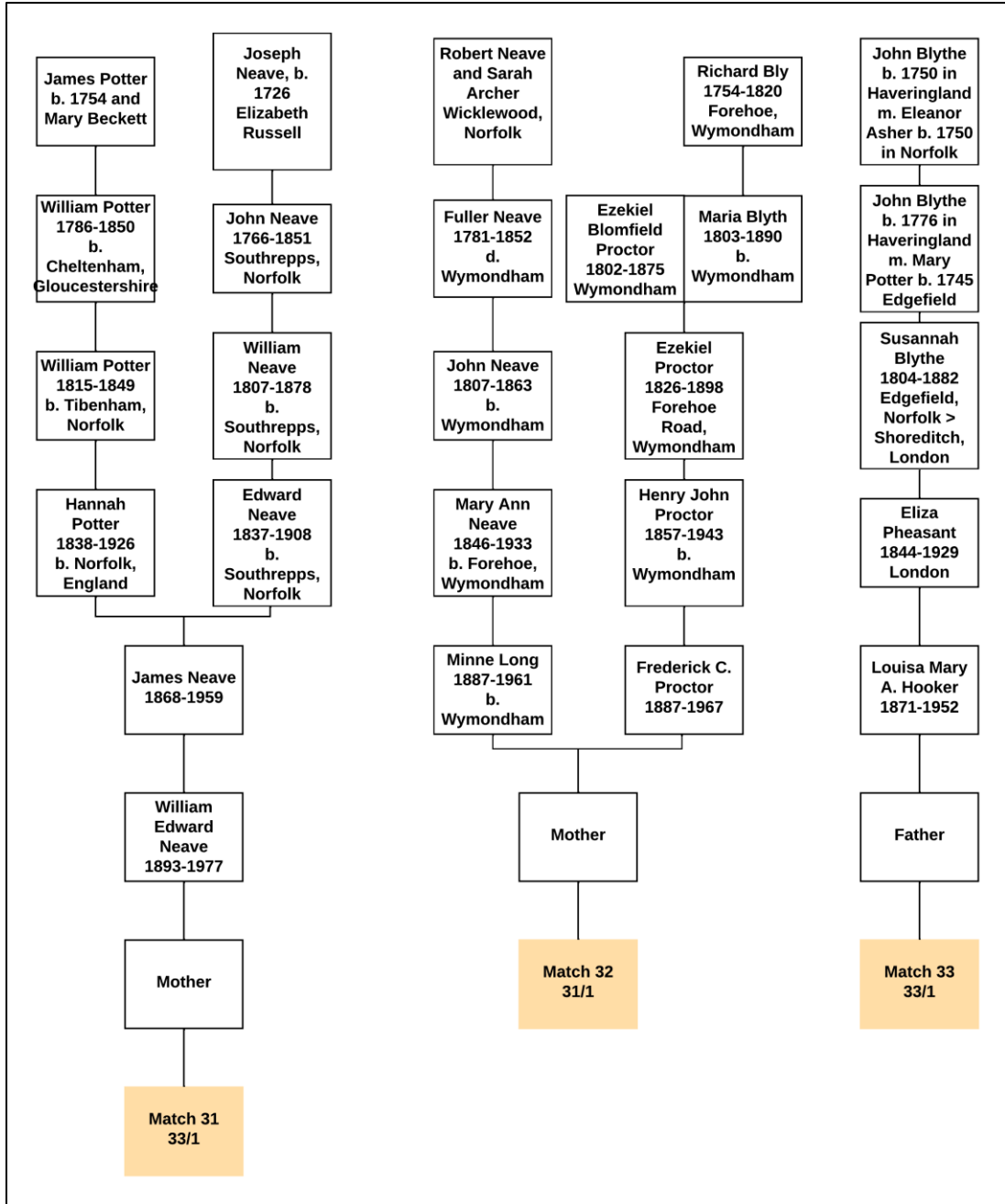


Figure 11. Matches with Ancestry DNA test taker Test Taker 1 with Common Surnames and the Locality of Norfolk County, England

Tracing the Dale and Brock Surnames

Gworks

The familial surnames suggested by the Y-DNA test results of William's great-grandson are Dale and Brock, with Dale being the surname for the closest Y-DNA match.²² If either of the surnames suggested by the Y-DNA test results are the correct surname for William's father, perhaps that surname might be discovered among autosomal DNA matches as well. Gworks is a tool from DNA Gedcom that sorts and filters DNA match data uploaded by users to generate surname lists.²³ The files gathered using the DNA Gedcom Clients and used to create the Gephi network graph are the same files that can be used with Gworks.

No occurrences of the Dale surname were discovered among DNA matches for the three test takers.²⁴ While the Brock name did appear in a few places, ancestors with the Brock name did not originate in England, and many of the matches with this name in their trees also shared a common ancestor on a different side of the test taker's family tree.

A connection to a Brock or Dale family has not been discovered in autosomal DNA test results. If Ann Munford lived in Wymondham or Hethel around September 1857 when William was conceived, finding Dale or Brock families who might have also lived in the area during that time could lead to paternal candidates for William.

Census Records

Census records have been taken in England every ten years beginning in 1801.²⁵ Records from 1801 through 1831 are incomplete, but records from 1841 through 1921 list every member of the household and provide additional information that can help distinguish individuals of the same name, including exact birthplaces and occupations. The 1851 and 1861 censuses could provide the names of Brock and Dale families who lived near Wymondham and Hethel. For this iteration of the project,

²² "Y-DNA Matches for Test Taker 1, Kit No. 951855," DNA matches at the Y-111, Y-67, and Y-37 Test Levels, *FamilyTree DNA* (<https://www.familytreedna.com/my/ydna/matches/detail-view> : accessed 23 February 2023), match [Private], genetic distance of four steps.

²³ "GWorks," *DNAGedCom* (https://www.dnagedcom.com/docs/GWorks_Howto_Updated.pdf : accessed 6 May 2023).

²⁴ "Surname Occurrences for Test Taker 1, Test Taker 2, and Test Taker 3" Gworks utility, *DNAGedcom* (<https://dnagedcom.com/GedComUtility/GedSurname.aspx> : accessed 25 April 2023), utilizing DNA match data from 30-600 cM, gathered 1 February 2023.

²⁵ "England Census," *FamilySearch Research Wiki* (https://www.familysearch.org/en/wiki/England_Census : accessed 25 April 2023).

families living within five miles of these two communities were examined (see figure 12). Additionally, men who would have been between the ages of twenty and forty-five in 1857 (born between 1812 and 1837) were deemed the most likely candidates. Ann would have been twenty-five at the time.

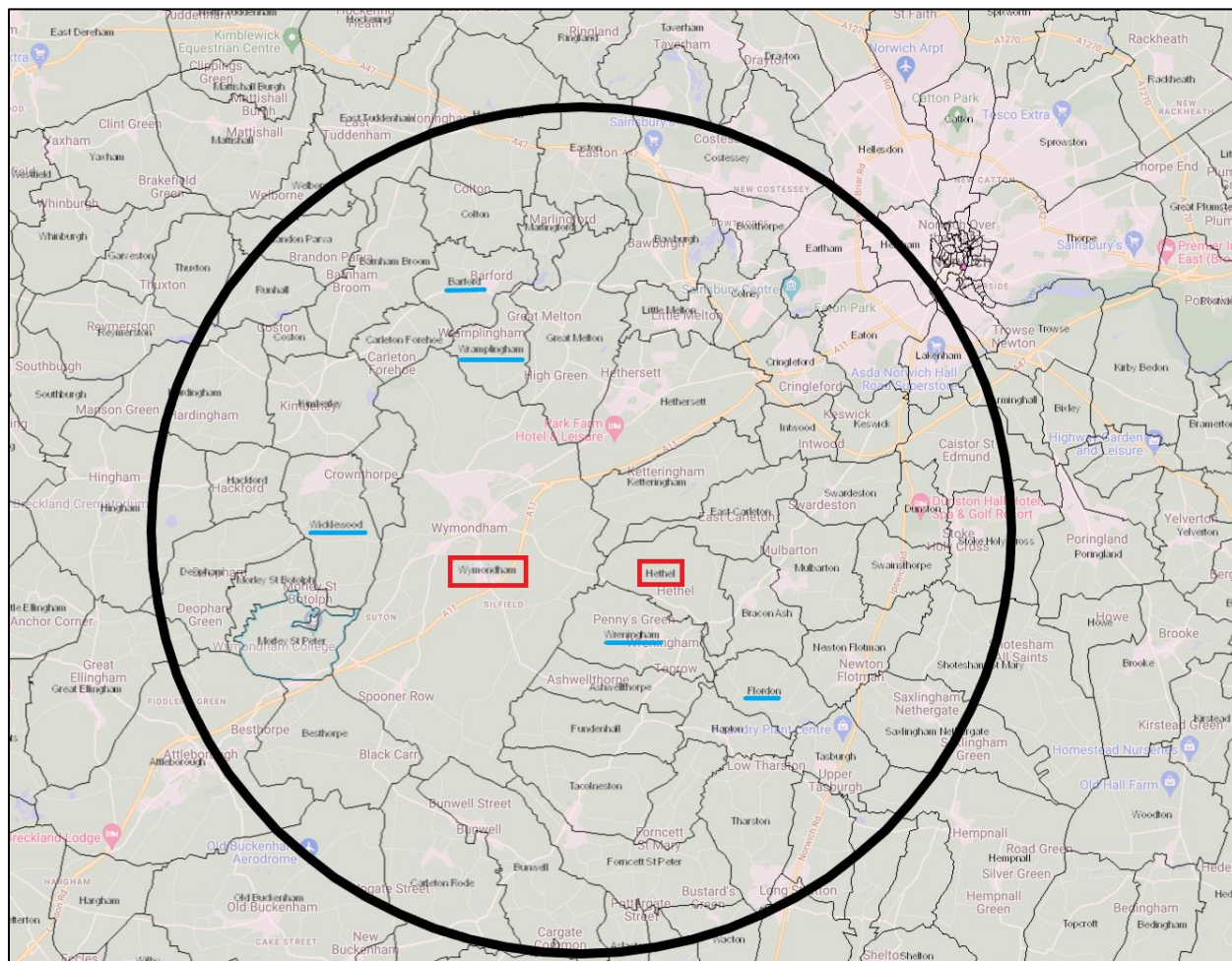


Figure 12. Norfolk County places within five miles of Wymondham and Hethel. Map adapted from "England Jurisdictions 1851," *FamilySearch* (<https://www.familysearch.org/mapp/> : accessed 2 May 2023).

The areas within five miles of Wymondham and Hethel fall largely within the Forehoe and Henstead registration districts.²⁶ Areas south of Wymondham, Wreningham, and Flordon are in the Depwade registration district. Research during this session focused on the Forehoe and Henstead registration districts. Brock and Dale families in Depwade can be examined in a future research session.

²⁶ "England Jurisdictions 1851," *FamilySearch* (<https://www.familysearch.org/mapp/> : accessed 2 May 2023). View by civil registration district.

No Brock men of the correct age were found to be living in the Forehoe and Henstead registration districts between 1851 and 1861.²⁷ Several Dale men lived in the area during this period.

- In 1851, James Dale, a single man born in 1826 in Wrampingham, lived in Wrampingham.²⁸ Wrampingham is four miles north of Wymondham.
- In 1851, Charles Dale (born in 1834), was a pauper living in the workhouse in Wicklewood.²⁹ At seventeen, he may have been the son of fifty-three-year-old Elizabeth Dale, who also lived in the workhouse.
- In 1851, Robert Dale, an agricultural laborer of Wreningham who was born about 1802 in Bracon Ash, was enumerated with two sons: John (born in 1827) and Robert (born in 1837).³⁰ Wreningham borders both Wymondham and Hethel. A third son, William (born in 1844), would have been too young to have fathered William Munford in 1857.
- In 1851, Noah Dale, an agricultural laborer of Flordon who was born about 1807 in Bracon Ash, had a son John who was born in 1837.³¹ Flordan borders Hethel and Wreningham.
- In 1861, Robert Dale, an agricultural laborer of Flordon who was born in Hethel, had two sons aged eighteen and sixteen.³² He also had a twenty-two-year-old daughter named Elizabeth living in his household. All the children were born in Wreningham. Similar information for the two families suggest that this could be the same Robert Dale who lived in Wreningham in 1851, even though their birthplaces differ.

²⁷ "1851 Census of England," database with images, *Ancestry* (<https://www.ancestry.com/search/collections/8860/> : accessed 12 April 2023), negative search for Brock men living in the Forehoe or Henstead registration districts. And "1861 England Census," database with images, *Ancestry* (<https://www.ancestry.com/search/collections/8767/> : accessed 16 April 2023), negative search for Brock men of the correct age living in the Forehoe and Henstead registration districts.

²⁸ "1851 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/5188918:8860> : accessed 25 April 2023) > Norfolk > Wrampingham > ALL > 14 > image 9, p. 9, no. 40, James Dale.

²⁹ "1851 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/5190027:8860> : accessed 25 April 2023) > Norfolk > Wicklewood > ALL > Workhouse for the Poor of the Incorporated Parishes of the Hundred of Forehoe > image 7, p. 194, Charles Dale.

³⁰ "1851 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/5201561:8860> : accessed 2 May 2023) > Norfolk > Wreningham > ALL > 9 > image 6, p. 5, no. 17, household of Robert Dale.

³¹ "1851 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/5203871:8860> : accessed 2 May 2023) > Norfolk > Flordon > ALL > 19 > image 4, p. 22, no. 6, household of Noah Dale.

³² "1861 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/17382521:8767> : accessed 2 May 2023) > Norfolk > Flordon > All > District 1 > image 2, p. 10, no. 3, household of Robert Dale.

- In 1861, Thomas Dale, a gardener who was born in Wreningham in 1814, lived in Flordan.³³ He was married with children during the period when William was conceived, and was eliminated as a likely paternal candidate for William Munford Stubbs.
- In 1861, James Dale, an agricultural laborer born in 1826 in Wrampingham, lived with his wife Elizabeth in Wrampingham.³⁴ The couple appears to have not had any children.

Electoral Registers

Census records can locate individuals in a particular place every ten years. Since William would have been conceived in 1857, locating men who lived in the five-mile range of Wymondham and Hethel in 1857 would be most helpful. Electoral registers were created each year and might provide evidence for Brock or Dale men in the area in 1857. However, it is estimated that these records cover only eleven percent of the population, so many paternal candidates could be missing from the collection.

No Brock men appeared in the electoral registers in the Forehoe or Henstead registration districts between 1851 and 1861.³⁵ Only one Dale man, John Dale, appeared in the registers. He was registered in Hapton in 1858-1860.³⁶

Tracing the Family of Robert Dale of Wreningham

Robert Dale of Wreningham lived closest to Wymondham and Hethel between 1851 and 1861. He had at least two sons who can be considered paternal candidates for William Munford Stubbs. Robert Dale lived in Wreningham with his wife Dinah in 1851. Tracing the couple back to 1841, they had five

³³ "1861 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/17382584:8767> : accessed 3 May 2023) > Norfolk > Flordan > All > District 1 > image 5, p. 20, no. 30, household of Thomas Dale.

³⁴ "1861 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/17372830:8767> : accessed 2 May 2023) > Norfolk > Wrampingham > All > District 8 > image 11, p. 11, no. 57, household of James Dale.

³⁵ "Norfolk, England, Register of Electors, 1832-1915," database with images, *Ancestry* (<https://www.ancestry.com/search/collections/9860/> : accessed 21 April 2023), negative search for Brock between 1851-1861.

³⁶ "Norfolk, England, Register of Electors, 1832-1915," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/930857:9860> : accessed 2 May 2023) > Norfolk > Eastern division > 1858, image 97, entry for John Dale of Hapton. Also "Norfolk, England, Register of Electors, 1832-1915," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/3321470:9860> : accessed 2 May 2023) > Norfolk > Eastern division > 1859, image 102, entry for John Dale of Hapton. And "Norfolk, England, Register of Electors, 1832-1915," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/785501:9860> accessed 2 May 2023) > Norfolk > Eastern division > 1860, image 217, entry for John Dale of Hapton.

sons living with them in Wreningham that year:³⁷ All but Daniel fit within the predicted age category for William Munford's father:

- James, born in 1824
- John, born in 1826
- David, born in 1830
- Robert, born in 1833
- Daniel, born in 1841

Two daughters were also present in the household: Sarah, born in 1837, and Elizabeth, born in 1839. Tracing each of the sons could lead to clues about whether he could have been William's father. Tracing the sons' and daughters' descendency could reveal potential DNA test takers. Seeking DNA matches with his wife's maiden name in their trees could provide additional genetic connections.

Table 3: Robert Dale's Family in Census Records

Name	1841^a Age Birthplace Occupation	1851^b Age Birthplace Occupation	1861^c Age Birthplace Occupation	1871^d Age Birthplace Occupation
Robert	40 Norfolk Agricultural Laborer	49 Bracon Ash, Agricultural Laborer	59 Hethel Agricultural Laborer	69 Bracon Ash Laborer
Dinah	35 Norfolk	44 Wreningham	—	
James	17 Norfolk Agricultural Laborer			
John	15 Norfolk	24 Wreningham		

³⁷ "1841 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/8550131:8978> : accessed 16 April 2023) > Norfolk > Wreningham > ALL > District 7 > image 11, entry for Robert Dale.

		Agricultural Laborer		
David	11 Norfolk	—		
Robert	8 Norfolk	16 Wreningham Agricultural Laborer		
Sarah	4 Norfolk	14 Wreningham		
Elizabeth	2 Norfolk	11 Wreningham	22 Wreningham	
Daniel	¼ Norfolk	—	18 Wreningham	28 Wreningham Laborer
William		6 Wreningham	—	26 (Lodger) Wreningham (Presumed wife and three children also living in the household, all b. Wymondham).
Benjamin (Grandson)			1 Flordan	12 Flordan
Ellen (Granddaughter)				9 Flordan

- a. “1841 England Census,” database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/8550136:8978> : accessed 25 April 2023) > Norfolk > Wreningham > ALL > District 7 > image 11, household of Robert Dale.
- b. “1851 England Census,” database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/5201561:8860> : accessed 25 April 2023) > Norfolk > Wreningham > ALL > 9 > image 6, no. 17, household of Robert Dale.
- c. “1861 England Census,” database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/17382521:8767> : accessed 25 April 2023) > Norfolk > Flordan > All > District 1 > image 2 > no. 3, household of Robert Dale.
- d. “1871 England Census,” database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/14584842:7619> : accessed 25 April 2023) > Norfolk > Flordon > ALL > 12 > image 6, no. 29, household of Robert Dale.

Robert Dale and Dinah Dawson

Robert Dale married Dinah Dawson in Wrenningham on 30 October 1823.³⁸ If one of their sons fathered William Munford Stubbs, perhaps the Dawson surname would appear on his descendants' DNA matches' trees. No Dawson connection was discovered in the DNA matches for the test takers. The Dawson surname appears on the trees of some DNA matches, but no Dawson individuals were born or died in Norfolk County, England. Many of the matches with the Dawson surname in their tree did not appear in Cluster 3, the relevant Gephi cluster for the Munford/Stubbs line. Those who did appear in the correct cluster descended from another common ancestor within this family.³⁹

James Dale

The only James Dale discovered on subsequent census records lived in Wrampingham.⁴⁰ He was born there about 1826. In 1851, James was a single agricultural laborer living in Wrampingham with a housekeeper, Ann Lee.⁴¹ In 1861, a James with the same occupation and birthplace lived with his wife Elizabeth. The couple did not have children living in the household.⁴²

A specific birthplace for the James who was Robert Dale's son was not given in the 1841 census enumeration. The James who lived in Wrampingham was born about two years later than the son of Robert. Because Robert and Dinah were married in Wrenningham and each of their other children were born there, it is likely that James would have been born there too. This is probably a different James Dale.

³⁸ "Norfolk, England, Transcripts of Church of England Baptism, Marriage and Burial Registers, 1600-1935," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/2393807:61636> : accessed 22 April 2023) > Bishops Transcripts > Archdeaconry of Norfolk 1823, T-Y > image 249, Robert Dale - Dinah Dawson, 30 October 1823.

³⁹ "Surname Occurrences for Test Taker 3, Test Taker 1, and Test Taker 2" Gworks utility, DNAGedcom (<https://dnagedcom.com/GedComUtility/GedSurname.aspx> : accessed 25 April 2023), utilizing DNA match data from 30-600 cM, gathered 1 February 2023.

⁴⁰ "1851 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/5188918:8860> : accessed 25 April 2023) > Norfolk > Wrampingham > ALL > 14 > image 9, p. 9, no. 40, James Dale. And "1861 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/17372830:8767> : accessed 2 May 2023) > Norfolk > Wrampingham > All > District 8 > image 11, p. 11, no. 57, household of James Dale.

⁴¹ "1851 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/5188918:8860> : accessed 25 April 2023) > Norfolk > Wrampingham > ALL > 14 > image 9, no. 40, household of James Dale.

⁴² "1861 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/17372830:876> : accessed 25 April 2023) > Norfolk > Wrampingham > All > District 8.

John Dale

The only John Dale discovered on subsequent census records in Norfolk County was born in the same year as the son of Robert (1826), but had a birthplace consistently reported as Shottesham.⁴³ A baptism record verifies the son of Robert's birth in Wreningham. He was baptized there on 20 August 1826⁴⁴ A baptism record for John Dale of Shottesham reveals that he was the illegitimate son of Esther Dale, baptized on 25 December 1826.⁴⁵ This was not the son of Robert Dale of Wreningham.

David Dale

David Dale did not appear on subsequent census records with his father. Additional records have not yet been sought.

Robert Dale

A Robert Dale, born at Flordan about 1839, served in the Royal Navy in 1861.⁴⁶ This could have been the son of Robert Sr. The family did move to Flordan sometime prior to 1851. Perhaps he was unsure of his birthplace. His birth year is also four years different than the year provided by his parents on earlier censuses. However, a note from an *Ancestry* user claims that he must have lied about his age and that his birth year was 1833, which fits with his recorded age on the 1841 census.

One authored account of Ann Munford's life states that she fell in love with a sailor who was later lost at sea. Robert's occupation fits with that family legend. However other details about that story have been disproved, including the assertion that the sailor's name was William Stubbs and that the couple married. Ann was a spinster when she immigrated to America, and the Stubbs surname is in question.

⁴³ "1861 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/24453892:8767> : accessed 24 April 2023) > Norfolk > Hapton > All > District 5 > image 9, household of John Dale. And "1881 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/21008653:7572> : accessed 24 April 2023) > London > Wandsworth > ALL > District 4 > image 14, no. 55, John Dale.

⁴⁴ Archdeaconry of Norfolk, Wreningham Parish, 1826, p. 22, baptism, John Dale, 20 August 1826; image, *FamilySearch* (<https://www.familysearch.org/ark:/61903/3:1:939F-R6B7-N> : accessed 25 April 2023), digital film #4143401, image 274.

⁴⁵ Archdeaconry of Norfolk, Shotesham St. Mary Parish, 1826, p. 13, baptism, John Dale, 25 December 1826; image, *FamilySearch* (<https://www.familysearch.org/ark:/61903/3:1:939F-R616-Q> : accessed 25 April 2023), digital film #4143401, image 71.

⁴⁶ "1861 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/15842769:8767> : accessed 25 April 2023) > Royal Navy > Vessels > All > District Torch > image 6, line 5, Robt. Dale.

Time limitations during this research session prevented a further in-depth study of the descendants of Robert Dale and additional study on other paternal candidates identified in the study of census records and electoral registers. This study could be undertaken in a future research session.

Conclusions

At this point the time allotted for this research session had expired. While the objective has not yet been met, much progress was made toward identifying potential paternal families for William Munford Stubbs, and new avenues of research have yet to be explored.

A combined network graph for three test takers who descend from William Munford Stubbs through independent child lines revealed a group of DNA matches who are possibly connected to William's paternal ancestors. Continued study of these matches' trees might result in pedigree triangulation, or a common ancestor for the group. Building the trees back might also lead to a connection to the ancestors of the closest Y-DNA match, James Marklan Dale.

Seeking men with the surname of Dale or Brock who lived within a five-mile radius of Ann Munford's hypothesized residence of Wymondham/Hethel resulted in no Brock candidates, but several Dale men were discovered. Further study of each of these candidates might lead to living descendants who could be invited to take a DNA test. Finding DNA matches among these descendants could point to a genetic relationship to at least a paternal family for William Munford Stubbs.

Suggestions for Future Research

- Continue to build trees for the DNA matches in subcluster 3-2 identified through network graph analysis. Contact matches with no trees. Seek pedigree triangulation among the matches. Seek a connection to the ancestors of Y-DNA match James Marklan Dale.
- Continue to study the descendants of Robert Dale of Wreningham to seek DNA test takers. If living descendants of the family match with the descendants of William Munford Stubbs, it would provide evidence that William's surname may have been Dale.
- Study the additional Dale men who lived within five miles of Wymondham and Hethel between 1851 and 1861:
 - In 1851, Charles Dale (born in 1834), was a pauper living in the workhouse in Wicklewood.⁴⁷ At seventeen, he may have been the son of fifty-three-year-old Elizabeth Dale, who also lived in the workhouse.

⁴⁷ "1851 England Census," database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/5190027:8860> : accessed 25 April 2023) > Norfolk > Wicklewood > ALL > Workhouse for the Poor of the Incorporated Parishes of the Hundred of Forehoe > image 7, p. 194, Charles Dale.

- In 1851, Noah Dale, an agricultural laborer of Flordon who was born about 1807 in Bracon Ash, had a son John who was born in 1837.⁴⁸ Flordon borders Hethel and Wreningham.
 - In 1861, Thomas Dale, a gardener who was born in Wreningham in 1814, lived in Flordon.⁴⁹ He was married with children during the period when William was conceived, and was eliminated as a likely paternal candidate for William Munford Stubbs.
 - In 1861, James Dale, an agricultural laborer born in 1826 in Wramplingham, lived with his wife Elizabeth in Wramplingham.⁵⁰ The couple appears to have not had any children.
- Seek Brock and Dale men born between 1812 and 1837 who lived in the Depwade Civil Registration District between 1851 and 1861. Trace their descendants to seek living individuals who could be asked to take a DNA test.
 - For a map of the civil registration districts, see <https://www.familysearch.org/mapp/>.
 - 1851 England Census: <https://www.ancestry.com/search/collections/8860/>.
 - 1861 England Census: <https://www.ancestry.com/search/collections/8767/>.
 - Norfolk, England, Register of Electors, 1832-1915: <https://www.ancestry.com/search/collections/9860/>.

⁴⁸ “1851 England Census,” database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/5203871:8860> : accessed 2 May 2023) > Norfolk > Flordon > ALL > 19 > image 4, p. 22, no. 6, household of Noah Dale.

⁴⁹ “1861 England Census,” database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/17382584:8767> : accessed 3 May 2023) > Norfolk > Flordon > All > District 1 > image 5, p. 20, no. 30, household of Thomas Dale.

⁵⁰ “1861 England Census,” database with images, *Ancestry* (<https://www.ancestry.com/discoveryui-content/view/17372830:8767> : accessed 2 May 2023) > Norfolk > Wramplingham > All > District 8 > image 11, p. 11, no. 57, household of James Dale.