Session 2 How to Pinpoint your Irish Genetic Homeland in 7 simple steps





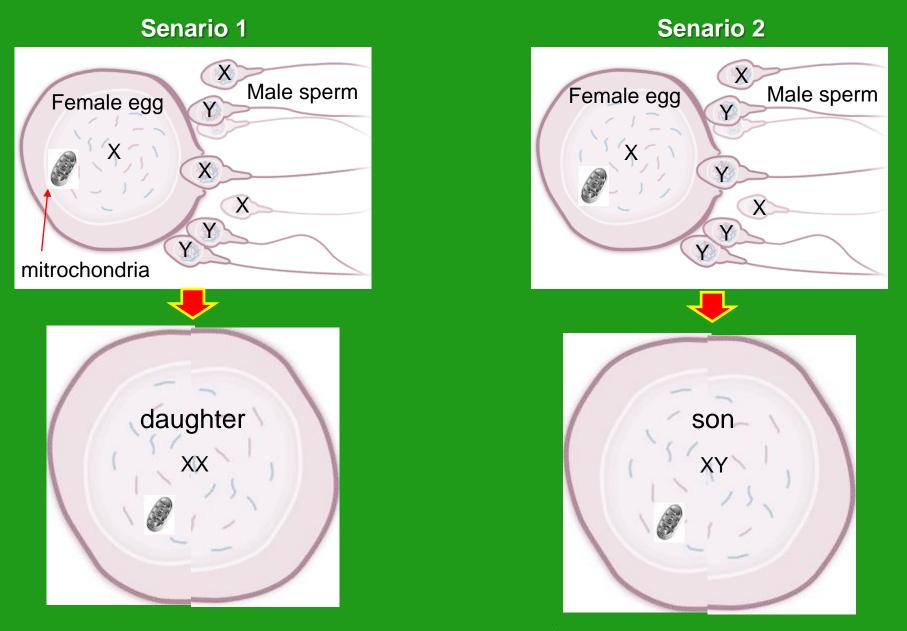


Dr Tyrone Bowes tyronebowe@gmail.com



A Crucial Biological event

- At the moment of conception we receive a complete complement of DNA, half from our mother and half from our father; 23 pairs of Chromosomes.
- The XY pair of chromosomes determines the sex of the child.
- Males are XY
- Females are XX
- Male sperm can only carry either an X or Y Chromosome
- The female egg carries additional DNA called mitrochondrial DNA (mtDNA)



All Mitrochondrial DNA comes from the mother Y chromosome is passed from father to son through the generations

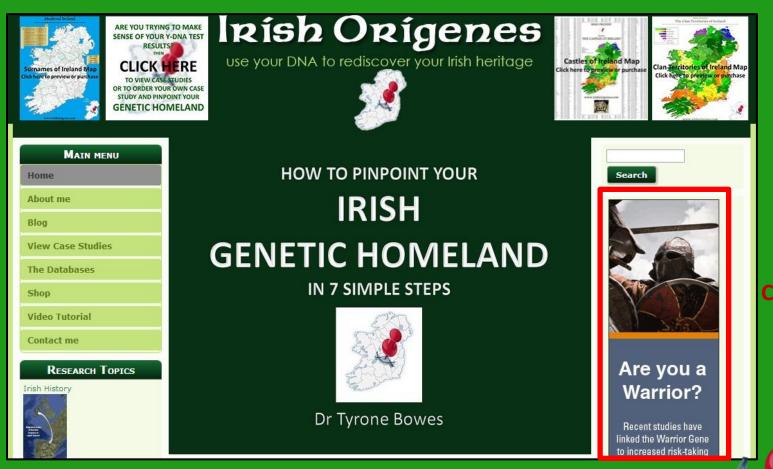
There are 3 main tests

Y-DNA mtDNA Autosomal DNA test

	Commercial ancestral DNA test									
	Y-DNA	mtDNA	Autosomal							
Who can take this DNA test?	males only	females only	males and females							
Pinpointing a geographical origin (how specific is it)	very specific to within a 5 mile radius	Country/Geographical region	not applicable							
Time Scale (to shared ancestry)	when surnames became common (e.g. 1000 years ago in Britain)	thousands of years	150-200 years							
Can the link to an area be confirmed	Yes	Yes	not applicable							

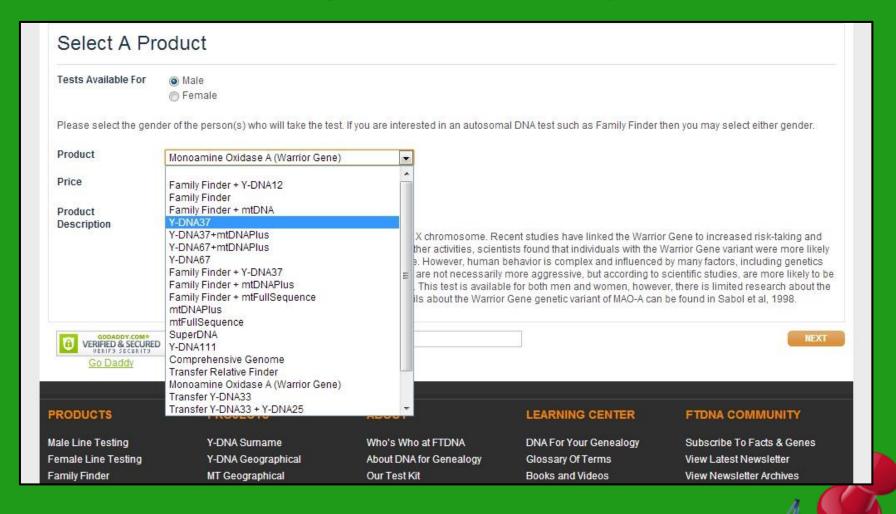


Order your commercial ancestral DNA test



Click here

Select which test you want from the drop down menu



All the ancestral DNA tests consists of a simple swab of cheek cells (which contain your DNA) from the inside of your mouth

Swab the cells and return it to the DNA testing company







mtDNA Autosomal DNA test Y-DNA

		Commercial ancestral DNA	A test
	mtDNA Autosomal		Y-DNA
DNA examined	mitrochondrial	all	Y chromosome
Who can take this DNA test?	males and females males and females		males only
Pinpointing a geographical origin (how specific is it?)	large geographical region	not applicable	very specific (to within a 5 mile radius)
Time Scale (to shared ancestry)	tens of thousands of years	150-200 years	when surnames became common (e.g. 1000 years ago in Britain)
Can the link to an area be confirmed?	Yes	Yes	Yes



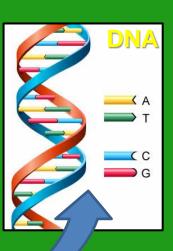








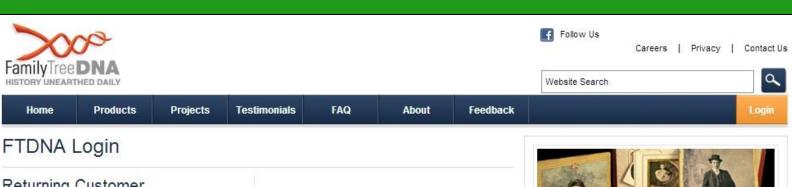




- The test looks at Markers in the mitrochondrial DNA.
- The company compares these markers to others on their database who have also taken the mtDNA test

You will receive an email notification when your results are ready Go to the Family Tree DNA Homepage and log in using your personal Login details







New Customer Join Family Tree DNA

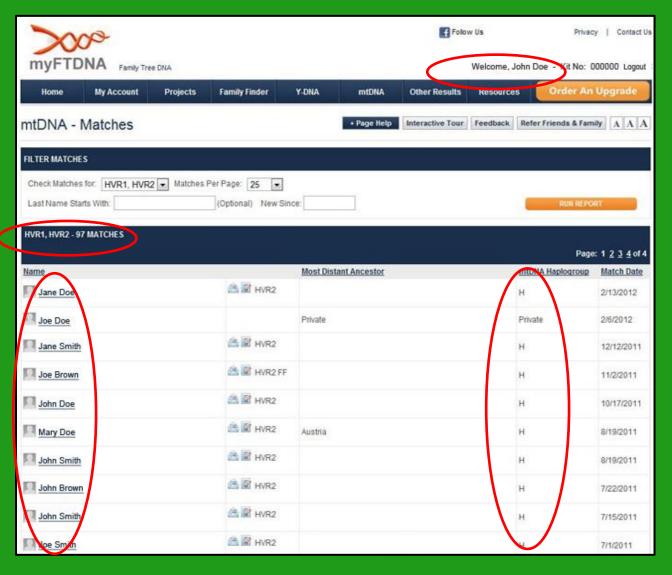
Family Tree DNA is dedicated to helping genealogists find lost relatives when the paper trail hits a brick wall. Our service was created for the serious amateurs and the professional genealogists who wish to extend their family trees by confirming a link where no conventional source records exist.

ORDER YOUR TEST NOW!



View the Family Tree DNA test kit

Examining your maternal line through commercial ancestral DNA testing The mtDNA test



Your mtDNA

haplogroup





Interpreting your mtDNA results



- The female line in Ireland is subject to less population migrations
- However without a link to surnames or land inheritance it can be more difficult to pinpoint a maternal origin within Ireland
- Pinpointing a
 maternal origin in
 Ireland may require
 females living in
 different parts of
 Ireland testing
- Computer analysis

Possibly 20 maternal Eve's who contributed to the Irish gene pool.

- Pinpointing your maternal origin will require a database of females living in Ireland testing
- Take a full mtDNA test and reveal a match to females/males in a particular part of Ireland.

Pinpointing your Maternal Irish origin



mtDNA Autosomal DNA test Y-DNA

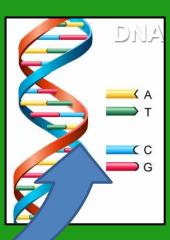
		Commercial ancestral DNA	A test
	mtDNA	Y-DNA	
DNA examined	mitrochondrial	all	Y chromosome
Who can take this DNA test?	males and females	males and females	males only
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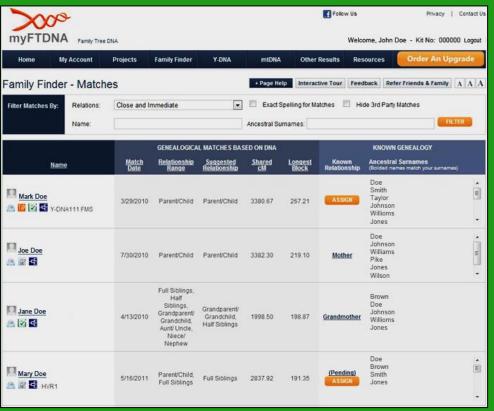


- The test looks at Markers in all your DNA (50% from mother, 50% from father).
- The company compares these markers to others on their database who have also taken the autosomal DNA test

There are a number of different companies that provide autosomal DNA testing

FTDNA

23 and Me



Details people with whom you share a common male ancestor over the last 150 years

List View	Map View Surname View		
surname	closest relative	count	enrichment ♥
Garcia	4th Cousin	25	150
Lopez	3rd Cousin	16	150
Ruiz	4th Cousin	12	150
Gonzales	4th Cousin	13	134
Romero	4th Cousin	12	133
Montoya	4th Cousin	9	133
Martinez	4th Cousin	21	130
Padilla	4th Cousin	9	128
Valenzuela	4th Cousin	8	127
Gonzalez	4th Cousin	15	124
Ortega	4th Cousin	9	124
Moreno	3rd Cousin	10	120
Estrada	4th Cousin	8	118
Garduno	4th Cousin	5	118
Carrillo	4th Cousin	7	107
Trujillo	5th Cousin	8	104
Flores	4th Cousin	10	101
Sanchez	4th Cousin	12	100
Perez	4th Cousin	12	96
Castillo	4th Cousin	8	93
Dominguez	4th Cousin	7	90
Cota	4th Cousin	5	89
Hernandez	4th Cousin	11	88
Gallegos	4th Cousin	6	86
Gutierrez	4th Cousin	8	79
Rodriguez	4th Cousin	11	68
Morales	4th Cousin	7	68
Villarreal	4th Cousin	5	68
Serrano	4th Cousin	5	67
Medina	4th Cousin	6	65
Chavez	3rd Cousin	6	60
Franco	3rd Cousin	5	60

Frequency of different surnames in your recent ancestry

You will get lots of matches to lots of people with whom you share a common male or female relative over the last 150 years

It is up to you to figure out how and when your common ancestor lived (the results do predict the relations ship; 1st, 2nd, 3rd, 4th cousin etc..

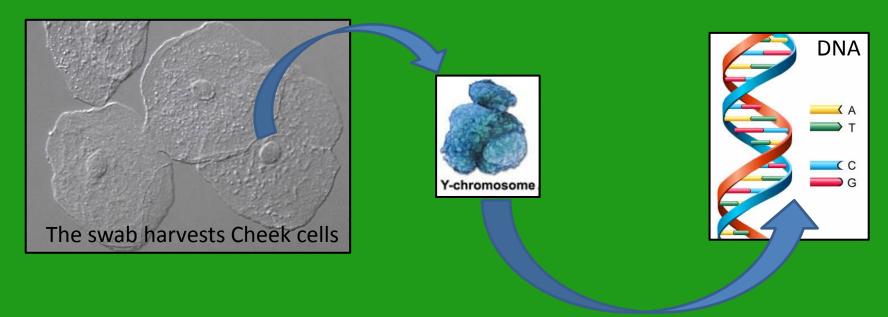
If you want to answer questions of where your ancestors lived in Ireland using autosomal DNA testing get an older relative to test

mtDNA Autosomal DNA test Y-DNA

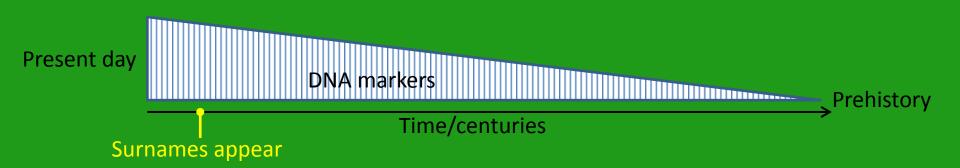
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Time Scale (to shared ancestry)	tens of thousands of years	150-200 years	when surnames became common (e.g. 1000 years ago in Britain)					
Can the link to an area be confirmed?	Yes	Yes	Yes					



Step 1: Take the Y-DNA test



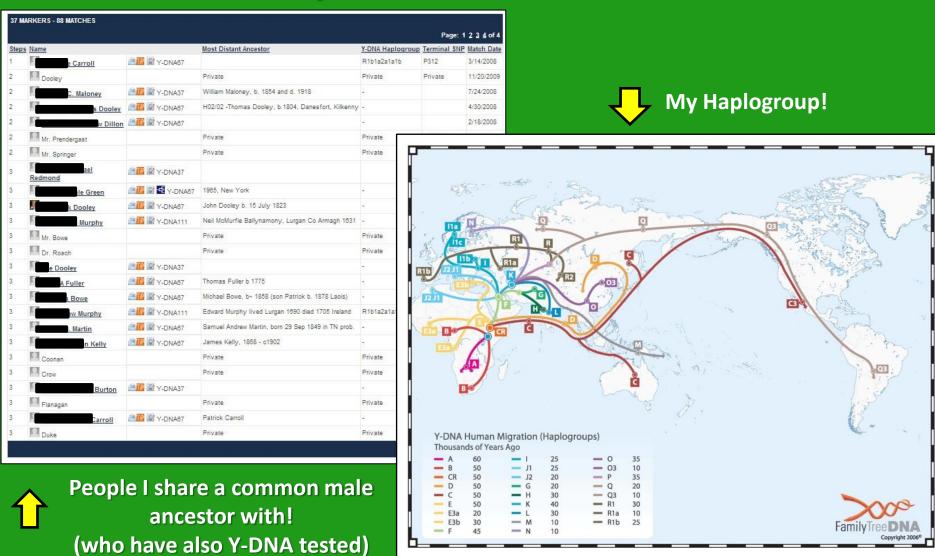
- The test typically looks at 37 or 67 bits (or Markers) on the Y chromosome.
- The company compares these markers to others on their database who have also taken the Y-DNA test
- The more of the markers you share with someone the closer your shared ancestor lived (e.g brothers would match at 37/37 or 67/67 markers)



ADVANTAGES OF Y-DNA TESTING

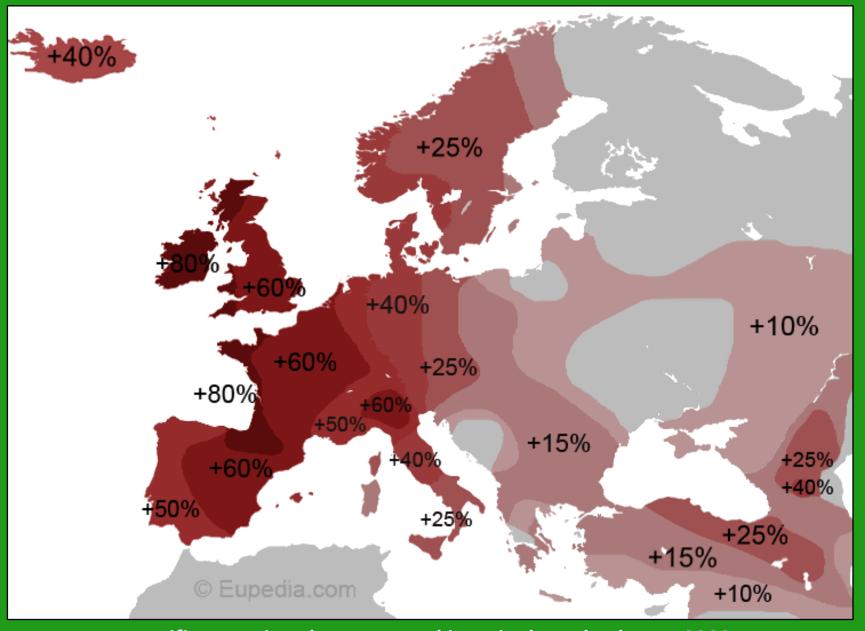
It is easier to determine shared ancestry with someone when you share a surname. Surnames, land, and the Y chromosome are typically passed from father to son through the generations.

This is what your DNA test results will look like My Bowes Y-DNA results

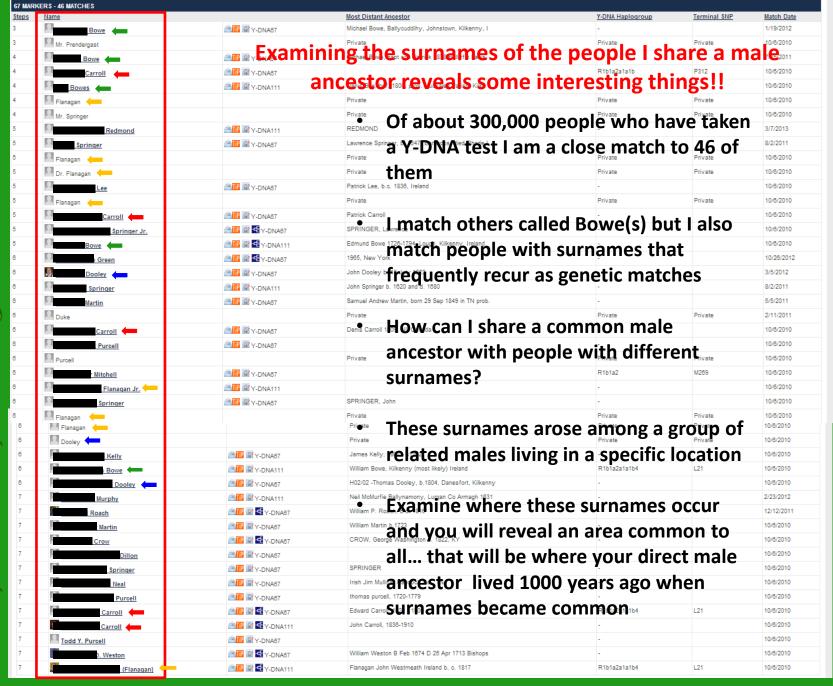




R1b is the most common haplogroup in Europe



Denotes a specific mutation that appeared in a single male about 18000 years ago
Haplogroup confirms my European origin



Classify surnames according to the point at which they first appear as a genetic match

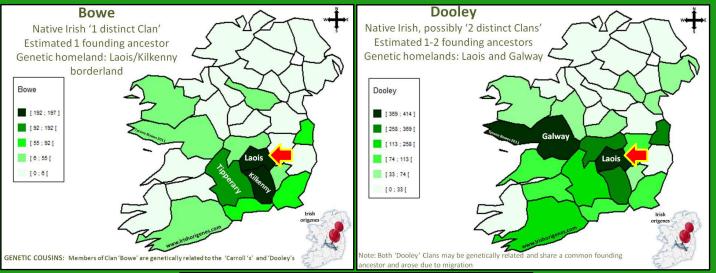
					67 marker						37 n	arke	er
	exact	-1	-2	-3	-4	-5	-6	-7	exact	-1	-2	-3	-4
Bowes	exact	-1	- 2	-3 Bowe/Bowes (x7)	Carroll (x15)		Green (x3) Dooley (x8) Purcell/Pursel (x6) Mitchell (x2) Martin (x5) Kelly (x8) ¹	Crow (x5)	exact		-2 Fuller (x2)	-	Treacy/Tracy (x4) Ainsworth (x4) ¹ Smith (x20) ² Egan (x5) Ryan (x15) Wray/Ray (x5) Norman (x4) ¹ Bathurst (x2) Ferguson (x5) ² Raines/Rains (x5) Bird (x3) Rainey (x2) Powell (x3)
TIMELINE	2000-1800AD	1800-1600	1600-1400	1400-1200	1200-1000	1000-800	800-600	600-400AD		_			(NO)

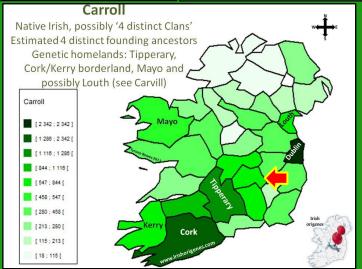
Figure 2: Reoccurring surname matches for test subject Bowes as revealed by commercial ancestral Y-DNA testing. Each Surname appears at the earliest point at which it occurs as a DNA match, for example the first match with a Bowe or Bowes occurs at 64 of 67 markers but not all Bowe/Bowes will match at that level. In brackets are the number of different individuals that occur as a match. Coloured font is indicative of the ethnicity associated with each surname; Irish, Norman/English, Scottish, black font indicates surnames with multiple possible ethnicities. Surnames in bold occur greater than 3 times. ¹Multiple individuals from the same close family tested, these are excluded from further analysis. ²The majority of these matches occur at the 12 marker level and hence the shared ancestry may be coincidental.

These (recurring) surnames will have arisen among a group of related individuals living in a specific location!

Plot where those surnames occur using census data and you'll reveal a common area of association (where ones direct male ancestor lived 1000 years ago)

Step 3: Examine surname distribution Irish Origenes Surname Distribution Map Database



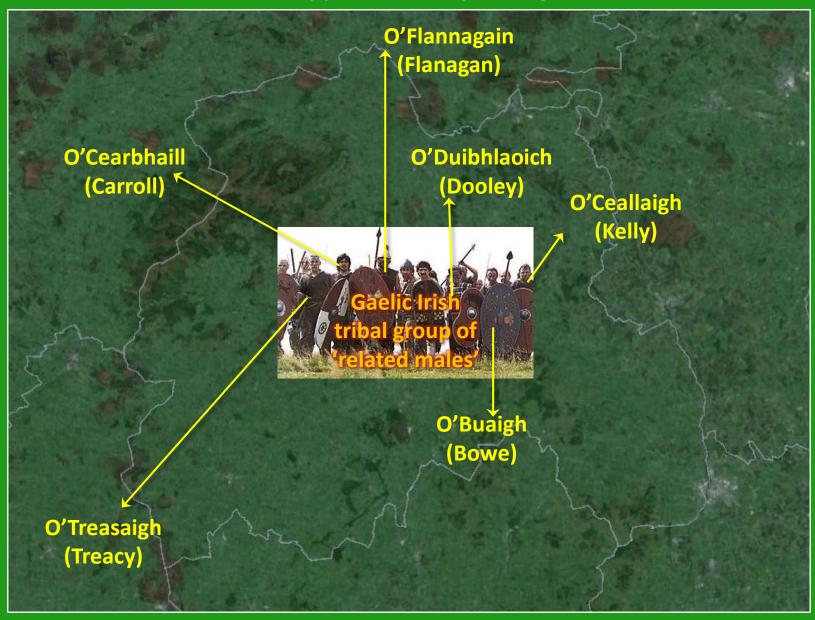


An ancestral link with County Laois is revealed

>4,500 surnames associated with Ireland on this database



What happened 1000 years ago?



In 1169AD the Normans arrive!!!!!



Adoptions and infidelities between neighbouring Gael and Normans over 100's of years

The surnames of the people with whom I share a common male ancestor are reflecting the relationships over hundreds if not thousands of years!

					67 marker						37 n	arke	er
	exact	-1	-2	-3	-4	-5	-6	-7	exact	-1	-2	-3	-4
Bowes	exact	-1	-2	-3 Bowe/Bowes (x7)	Carroll (x15)	-5 Lee (x5)	Green (x3) Dooley (x8) Purcell/Pursel (x6) Mitchell (x2) Martin (x5) Kelly (x8) ¹	Crow (x5)	exact		-2 Fuller (x2)	1	-4 Treacy/Tracy (x4) Ainsworth (x4) ¹ Smith (x20) ² Egan (x5) Ryan (x15) Wray/Ray (x5) Norman (x4) ¹ Bathurst (x2) Ferguson (x5) ² Raines/Rains (x5) Bird (x3) Rainey (x2)
					4000 4000								Powell (x3)
TIMELINE	2000-1800AD	1800-1600	1600-1400	1400-1200	1200-1000	1000-800	800-600	600-400AD					

Figure 2: Reoccurring surname matches for test subject Bowes as revealed by commercial ancestral Y-DNA testing. Each Surname appears at the earliest point at which it occurs as a DNA match, for example the first match with a Bowe or Bowes occurs at 64 of 67 markers but not all Bowe/Bowes will match at that level. In brackets are the number of different individuals that occur as a match. Coloured font is indicative of the ethnicity associated with each surname; Irish, Norman/English, Scottish, black font indicates surnames with multiple possible ethnicities. Surnames in bold occur greater than 3 times. ¹Multiple individuals from the same close family tested, these are excluded from further analysis. ²The majority of these matches occur at the 12 marker level and hence the shared ancestry may be coincidental.



Step 4: Farmers and where they cluster







I'm a scientist and I want more evidence to support the ancestral link of these Clans and Families as revealed in my DNA results with **County Laois and bordering Counties**

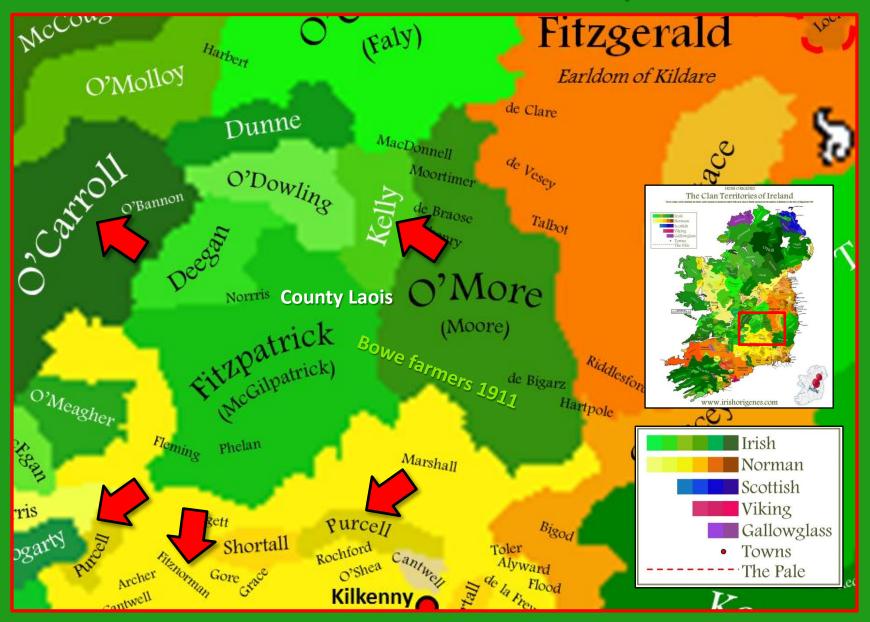
- Farmers and where they cluster
- Historical monuments i.e. Castles and Towerhouses historically (associated with these Clans and Families



- Placenames (townlands, crossroads, local placenames)
- **Historical records**
- DNA evidence (test people living in the pinpointed area)

The Irish Origenes Castles of Ireland Map 1040 1346 509 **O**1039 1068 🗪 534 338 1049 **County Laois** O 1128 334 0466 1207 O 699 **Bowe farmers 1911** 796 1018 917 270 Irish 332 Carroll'O Ballymooney Castle 53° 4'0.17"N 7°48'30.18"W Norman 333 Carroll'O 'Birr Castle' 53° 5'37.91"N 7°54'48.40"W 334 Carroll'O 52°58'19.04"N 7°47'5.13"W 'Dungar Castle' Norman/Irish/Planter 335 Carroll'O 'Emmel Castle' 52°54'46.03"N 8° 1'23.90"W Carroll'O 'Kinnity Castle' 53° 6'9.14"N 7°41'51.51"W Religious order 'O'Carroll's Castle' 53° 0'23.68"N 338 Carroll'O 'Rathmore Castle' 53° 1'54.97"N Viking 339 Carroll'O 'Kilfadda Castle' 53° 3'27.49"N 8° 7'10.69"W Gallowglass 340 Carroll'O 'Ballybrit Castle' 53° 0'39.90"N 341 Carroll'O 'Busherstown Castle' 52°53'37.00"N Scottish 342 Carroll'O 'Corolanty Castle' 7°55'44.86"W 53° 0'39.16"N 343 Carroll'O 'Cullenwaine Castle' 7°58'51.96"W 52°53'36.91"N 15th/16th Century Fort/Plantation Bawn 344 Carthy'Mc 'Rock of Cashel' 7°53'22.19"W 52°31'12.76"N

Castle locations were used to construct the Irish Origenes 'Clan Territories of Ireland Map'



I'm a scientist and I want more evidence to support the ancestral link of these Clans and Families as revealed in my DNA results with County Laois and bordering Counties

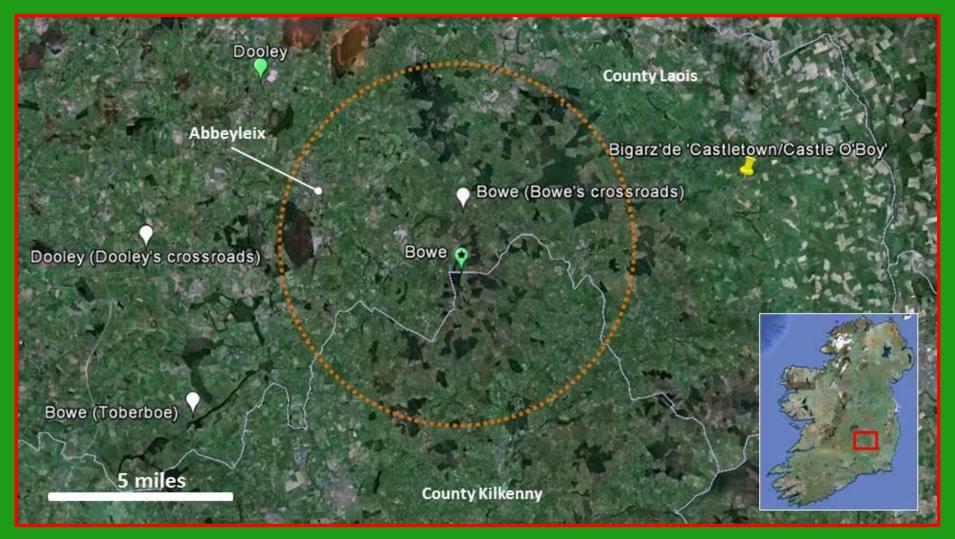
- Farmers and where they cluster
- Historical monuments i.e. Castles and Towerhouses historically associated with these Clans and Families
- Placenames (townlands, crossroads, local placenames)
- Historical records
- DNA evidence (test people living in the pinpointed area)

Step 5: Examine Placenames

Irish placenames hold a wealth of information regarding the Clans that first appeared there or the Norman families that settled there.



An examination of Placenames in County Laois reveals a Bowe crossroads!



Bowe's crossroads is found on early ordinance survey maps!

I'm a scientist and I want more evidence to support the ancestral link of these Clans and Families as revealed in my DNA results with County Laois and bordering Counties

- Farmers and where they cluster
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Step 6: Examine Historical records

historical references to my Bowes ancestors in Laois/Kilkenny/Tipperary borderlands

From the Tudor faints:

"163 (118). Pardon to Jordan Morreyse, of Croghan, county Tipperary, husbandman; especially for the death of **Phillip O'Bowe**, ploughman." Dated 6th April 1548 (page 104, fiants of Edward VI). "2035 (1631.) Pardon to ... **John O'Bow**, late of Brownestown, ..." dated 11 January 1572. page 261. "5370 (4286.) Pardon to ... **Phillip O Boe**, of Corristowne, ... co. Kilkenny." dated 4 November 1589. "6191 (5017.) Pardon to ... **Edm. Obowe** ... This pardon shall be of force only for persons born or residing int he province of Munster, or County of Kilkenny." dated 17 February 1598. pages 317-18. "6484 (5240.) Pardon to ... **Rich O Boe**, husb., ...". dated 28 March 1601. page 401.

From the "Calandar of Papal Registers:

Papal Letters vol. xv 1484-1492" the index lists three men surnamed "O Bogue (OBinyde, Oboe, Obuy)"

- 1 John, Canon of Aghmacart, to have rectory of Kildellig, number 688.
- 2 Patrick, priest of Ossory diocese, to have rectory of Rathsaran and vicarage of Erke, number 674 (dated 19 April 1491, states "Patrick Obinyde, priest, d. Ossory", was the illigitimate son of unmarried parents. Apparently he also had a family).
- 3 William, priest of Lismore diocese, to have vicarage of Rathdonan, number 358 (dated 25 February 1489)

Courtesy of Mr Adrian Martyn Medieval researcher, Galway City, Ireland



Α		67 marker									37 marker			
	exact	-1	-2	-3	-4	-5	-6	-7	exact	-1	-2	-3	-4	
Bowe	s -		-	Bowe/Bowes (x7)	Carroll (x15) Springer (x6) ¹ Flanagan (x7)	Lee (x5)	Green (x3) Dooley (x8) PurcellPursel (x6) Mitchell (x2) Martin (x5) Kelly (x8) ¹	Crow (x5) Murphy (x3) Roach (x2)	-	-	Fuller (x2)		Treacy/Tracy (x4) Ainsworth (x4) ¹ Smith (x20) ² Egan (x5) Ryan (x15) Wray/Ray (x5) Norman (x4) ¹ Bathurst (x2) Ferguson (x5) ² Raines/Rains (x5) Bird (x3) Rainey (x2) Powel (x3)	

B The Cantreds of Ely O'Carroll poem by O'Heerin from 1420 describes the Kingdom of O'Carroll from the time of Brian Boru. It mentions 4 Clans that occur as a genetic match to Bowe's; O'Carroll's, Flanigan's, Hegan (Egan) and Dooley's

"Lords to whom stoop the nuts (a very odd expression)
Are the <u>O'Carrolls</u> of the Plain of Birra
King (Kings?) of Ely to the sweet Bloyma;
Most hospitable mansion in Ireland.

Eight tuathas (Cantreds) eight chiefs there are Under the King of Ely - land of cattle Brave the host in threatning (tuar) an incursion That yellow-waving-haired army.

O'Flanigan of the snowy hand Rules over all the Kinel Arga (1) Of the race of Teige, son of Kian of Crinna (1 1/2) He dwells at hospitable Ardlick Oilill.

Over the Clan Rooney of the flowery roads That sweet, cleared, smooth streamed country That fair bordered, wine festive cantred Rules Mag Corcran of the numerous tribe.

O'Hegan of Crioch Chein,
Is over the Clan Ionmhainen of smooth land
A cantred which showers a feast on every spot (2)
And a dew of honey on every cluster (pod).

The great cantred of the vigorous Clan Maonaigh
Is hereditary to <u>O'Dooley</u> (3)
This tribe are brave retainers
Placed at the breast of the clear streamed Bloyma.

A chief whose trees bear white nuts Is over the Clan Conligan of heavy fruit Twig of Biorra of Elyan tribe (4) Mac Guilfoyle of the fair-white mansion.

Hy Deki, the goodly cantred of hills,
The wide, fair-mansioned land, (do dluthaigh duibh)
A fruitful land which adhered to them
Is O'Banan's Patrimonial (ancestorial) inheritance (5)

Their country has been mightily peopled By the O'Meaghers of Crioch Keerin (6) Tribe of (at) the foot of Bearnan Eile (7) No shame to recount their exploits.

Tuath Faralt (8) of the cleared woods Is the inheritance of O'Hailchen, A fair mansioned plain of populous tribe, Like the land of Taillteann, dry, tho' streamy.



The Gaelic Irish O'Boy/O'Boe (Bowes) are related to the Ely O'Carrolls

Day 2: Tour of the Castles built by the O'Carroll Clan

Castle Number 333



Castle Number 343

Castle Number 19

www.irishorigenes.com

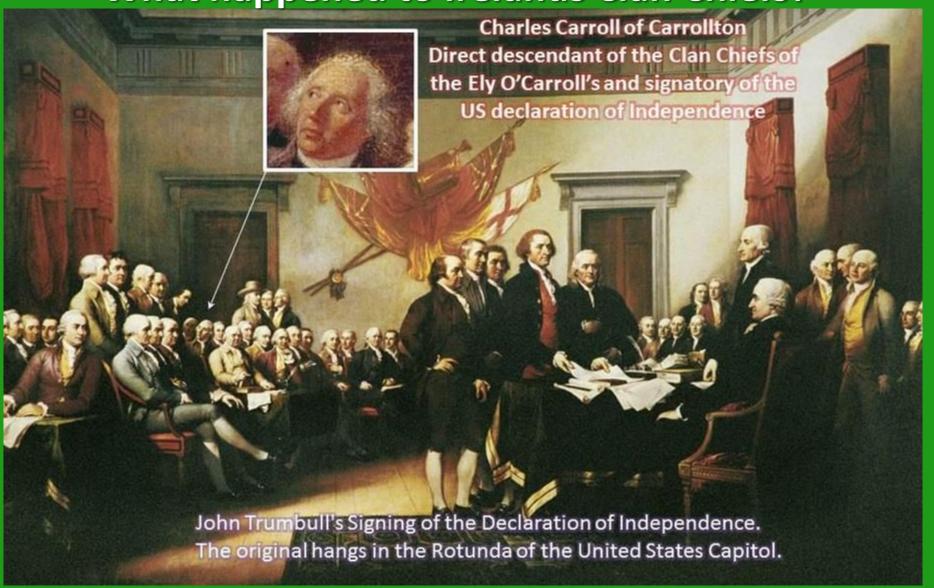


Clan Bowe emerged from the O'Carroll Clan approximately 1000 years ago



Cullenwaine Castle

What happened to Irelands Clan Chiefs?



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Boosting Tourism Walk in your ancestors footsteps



I am a genetic match to Bowe males who live in County Laois

The challenge of modern genealogy will be to connect the paper trail to the area that the DNA pinpoints

Clues to origins can be found in your genealogical paper trail

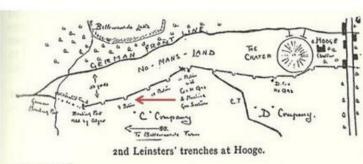
"STAND TO"

bombing attack had been successfully repulsed Algeo and his bombers flattened out the old German parapets, and filled in the trench in front of the barricade, so that the Huns could not approach this post under cover. Within 15 yards of our barricade, the enemy switched off their old front line into their old support line. Throughout the night, the enemy were very offensive with bombs and snipers. We did not retaliate, as we were too busily employed reversing the parapets, making firesteps and deepening the trench everywhere, as we were anticipating a bombardment and a counter-attack on the morrow. Sergt. Bennett and his Machine-Gun Section worked splendidly, and built two fine battle positions for their guns. All the men worked like Trojans on top of the parapets in their shirt sleeves.

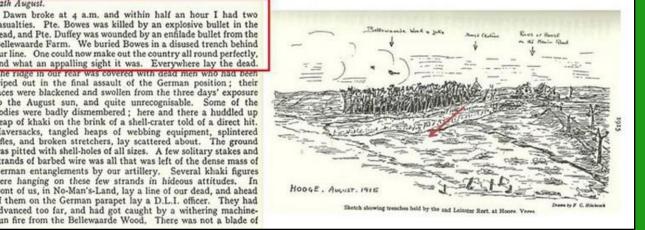
The place reeked with the smell of decomposed bodies. They lay about in hundreds, on top of the parapets, in our trenches, in No-Man's-Land, and behind the parados. The British dead mostly belong to the 2nd York and Lancs, and the 2nd D.L.I. The dug-outs were full of dead Germans, those that were not, two only, were strengthened for occupation. While we were working bullets spat viciously all round, and we had several casualties.

12th August.

casualties. Pte. Bowes was killed by an explosive bullet in the head, and Pte. Duffey was wounded by an enfilade bullet from the Bellewaarde Farm. We buried Bowes in a disused trench behind our line. One could now make out the country all round perfectly, and what an appalling sight it was. Everywhere lay the dead. The ridge in our rear was covered with dead men who had been wiped out in the final assault of the German position; their faces were blackened and swollen from the three days' exposure to the August sun, and quite unrecognisable. Some of the bodies were badly dismembered; here and there a huddled up heap of khaki on the brink of a shell-crater told of a direct hit. Haversacks, tangled heaps of webbing equipment, splintered rifles, and broken stretchers, lay scattered about. The ground was pitted with shell-holes of all sizes. A few solitary stakes and strands of barbed wire was all that was left of the dense mass of German entanglements by our artillery. Several khaki figures were hanging on these few strands in hideous attitudes. In front of us, in No-Man's-Land, lay a line of our dead, and ahead of them on the German parapet lay a D.L.I. officer. They had advanced too far, and had got caught by a withering machinegun fire from the Bellewaarde Wood. There was not a blade of



13th August.





'Stand to' a diary of the trenches 1915-1918 by Captain F.C. Hitchcock M.C.

Where will your DNA take you?



Thank you for your time Any questions?

Dr Tireoghain O'Buaigh tyronebowes@gmail.com