

South Australia DNA Project



WHAT IS THE PROJECT AND HOW DID IT BEGIN?

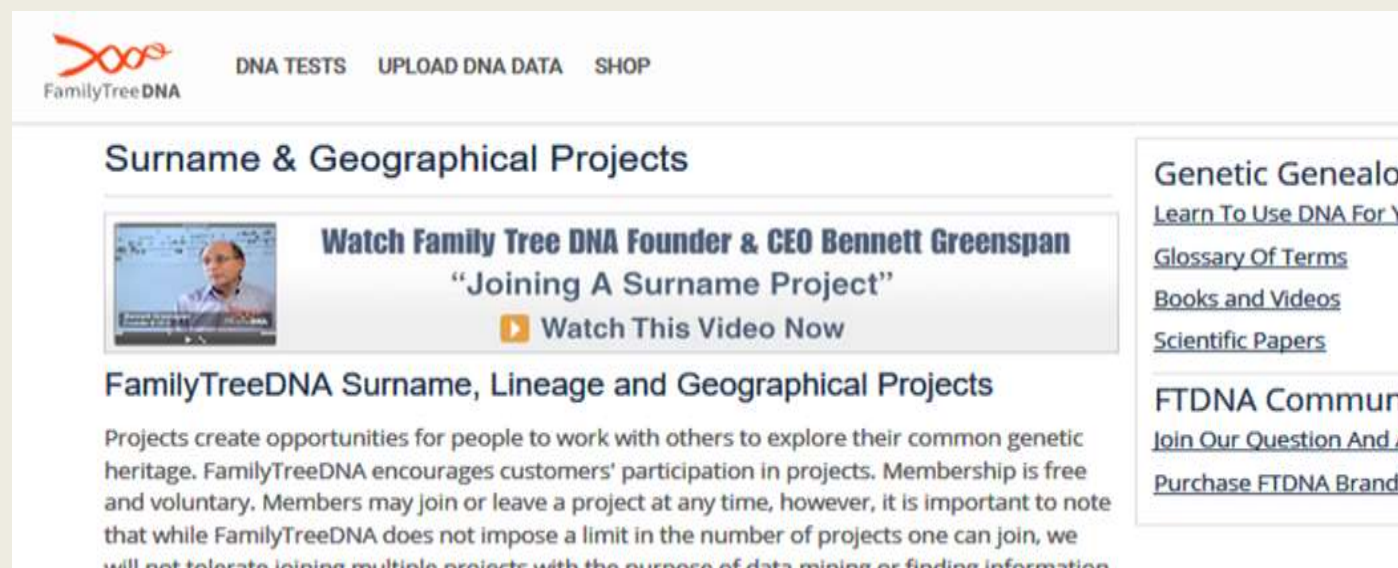
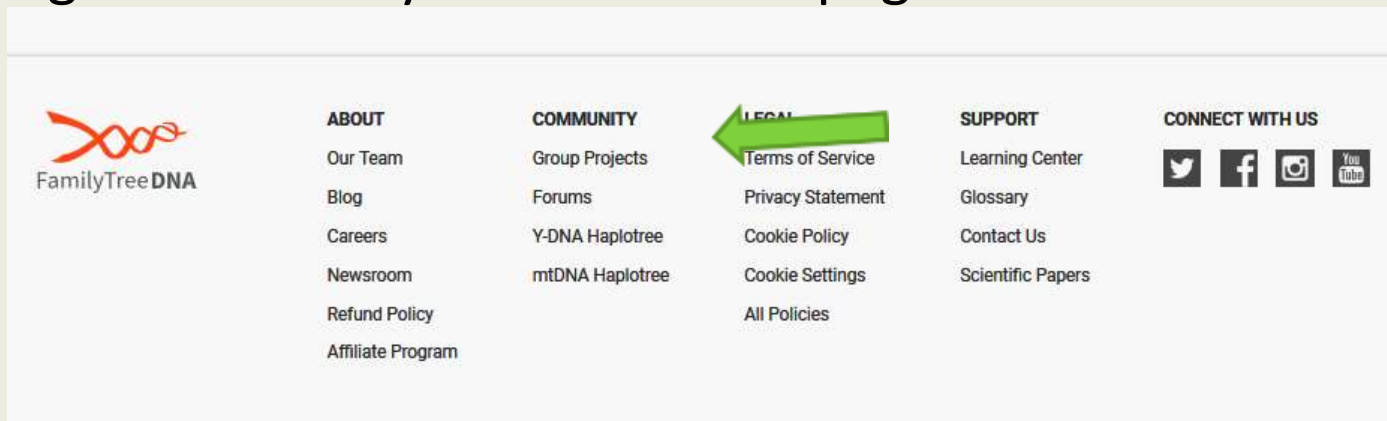
- Genealogy SA began a DNA Special Interest group in 2011 to help members learn about DNA and how it can help
- The Project, a geographic project with FTDNA, was set up as a “learning aid”

WHO CAN JOIN?

- The Project is open to anyone who has a connection to the South Australian gene pool and has DNA test results
- Members must have tested with FTDNA or uploaded their results to that site
- Membership not confined to those currently living in South Australia - there are many interstate members

HOW TO FIND US

Click on the Group Projects on the FTDNA homepage – it's right at the very bottom of the page. Click 'browse'.

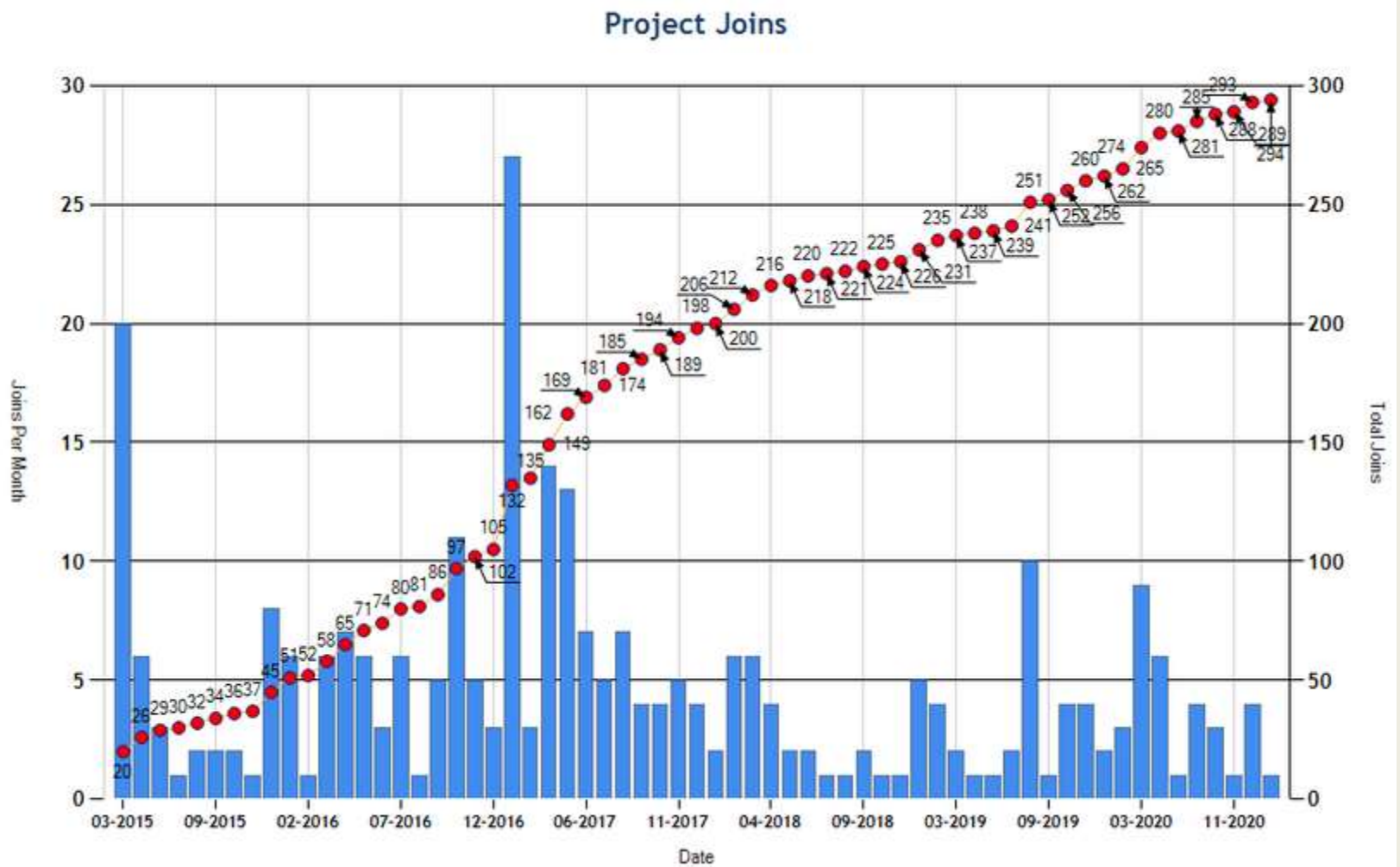


Scroll down to Dual Geographic Projects

DUAL GEOGRAPHICAL PROJECTS				
4 (1)	6 (1)	A (50)	À (1)	B (37)
C (55)	D (15)	E (16)	F (15)	G (29)
H (22)	I (14)	J (30)	K (19)	L (22)
M (36)	N (42)	O (16)	P (34)	Q (2)
R (14)	S (75)	T (17)	U (14)	V (16)
W (15)	Y (3)	Z (2)	(1) †	

Sondrio & Graubünden	9	This project is for people who have paternal or maternal gen...
South African Cape C	126	CAPE COLOURED ANCESTRY PROJECT - SOUTH AFRICA Established...
South Australia	241	The South Australia Dual Geographic Project aims to identif...
South East Asia	175	Southeast Asia or Southeastern Asia is a subregion of Asia, ...
Southern Band Tuscarora	4	

Numbers have been growing steadily



Test types taken by members

	2019	2021
Statistic Type	Count	
Big Y	24	34
Combined GEDCOMs Uploaded	18	19
DISTINCT mtDNA Haplogroups	69	90
DISTINCT Y-DNA Confirmed Haplogroups	52	62
DISTINCT Y-DNA Predicted Haplogroups	0	0
Family Finder	193	230
Genographic 2.0 Transfers	7	7
Maternal Ancestor Information	162	195
mtDNA	81	107
mtDNA Full Sequence	73	98
mtDNA Plus	79	105
mtDNA Subgroups	11	12
Paternal Ancestor Information	178	213
Predicted Y-DNA Haplogroups	49	60
Total Members	231	294
Unpredicted Y-DNA Haplogroups	0	0
Unreturned Kits	26	39
WTY	2	2
Y-DNA Deep Clade (After 2008)	10	10
Y-DNA Deep Clade (Prior to 2008)	2	1
Y-DNA Subgroups	14	13
Y-DNA111	42	64
Y-DNA12	99	121
Y-DNA25	99	121
Y-DNA37	97	121
Y-DNA67	76	95

AIMS

- To obtain a DNA 'profile' of South Australians
 - Y-DNA and mtDNA haplogroups
 - Admixture (ethnicity) estimates from at-DNA
- To compare members' atDNA results to test cousinship

Aims (cont.)

- To see whether the results reflect the origins of people who came to SA at various times from
 - Our aboriginal first people
 - British and Germanic settlers from 1836
 - Post WW2 European migration
 - More recent Asian and African migration

WHAT THE PROJECT PROVIDES

- A learning tool for members (SAGHS DNA Special Interest group)
- Individual help
- Increase knowledge
- A developing picture of the DNA profiles of South Australians – this will improve as more people join the Project

WHY DO WE USE FTDNA

- do Y-DNA STR testing and mtDNA sequencing
- atDNA results from Ancestry, 23andMe and MyHeritage can be imported into the FTDNA database
- FTDNA have a user friendly product for finding cousins
- They support DNA projects
- They provide tools that project administrators can use



POPULATION AND MIGRATION

- Indigenous population
- Where did they come from
- When did they come
- Reasons for leaving
- Reasons for choosing South Australia
- Is this reflected in the DNA of present day South Australians?

INDIGENOUS POPULATION

- In 1788 estimated ~15,000 in South Australia
- Population decreased even before settlement of South Australia – sealers spread disease
- Numbers started to increase after 1921, did not reach pre-contact levels until 1991
- Numbers not included in census counts until 1966
- Very little Australian Aboriginal DNA data available

MIGRATION PATTERNS FOR EUROPEAN SETTLERS

- First British immigrants arrived (initially to Kangaroo Island and Glenelg) from July 1836 onwards. Sealers were based on Kangaroo Island from the early 1800s.
- Under the Wakefield Scheme the demographics of the population was planned resulting in homogeneous society derived overwhelmingly from the British Isles
- Lutheran Germanic people started arriving in 1838
- This changed after WW2 with 10% of the population from non-English speaking countries in the mid 1970s).
- Process was not smooth with large numbers arriving in the 1830s, mid-1850s and more recently the 1950s and 1960s.
- Recession times, particularly the early 1840s, the 1890s and the 1930s saw far fewer migrants.

POPULATION ESTIMATES

- In 1836 population estimated at 546 but in the first year >7,000 people arrived, mostly under the Wakefield scheme. Not all remained, many moving quickly on to Victoria.
- Policies calibrated the composition of the population, especially with regard to family structure, age and sex balance.
- Within the first 21 years population rose to ~110,000 and by 1880 there were ~260,000 residents
- Between 1844 and 1855 population increased fivefold – immigration boosted partly to counteract loss of citizens to the Victorian goldfields.
- After 1857 immigration “tap” turned on only for relatively short periods for the remainder of the century (the mid-1860s, 1875-84 and just prior to WW1) and finally post WW2.

FOUNDER EFFECT

The composition of South Australia's population may be different from the other States in the Commonwealth as there was organised regional migration with no transported convicts from diverse British origins. There is probably a "founder effect" which it is hypothesized would be reflected in DNA results of its current citizens.



BRITISH ISLES

Majority of immigrants were from the British Isles – in 1861 83% of immigrants

WHY DID THEY LEAVE?

- Discontent about opportunities for advancement in social and economic fields
 - No faith in the possibility of reform. Douglas Pike wrote: “South Australia was settled in 1836 by men whose professed ideals were civil liberty, social opportunity and equality for all religions
-
- Further Inclosure Acts following those in previous centuries
 - Rapid mechanisation in both manufacturing and agriculture
 - Corn laws had increased the cost of bread
 - Repeal of income tax meant cost of commodities were increased to cover the war debt

Cornwall (cont.)

- Reports about South Australia indicated it lacked the lawlessness of the penal colonies with one of its tenets being the freedom of religious worship.
- Methodism had been embraced in Cornwall and its emphasis on self help and individual improvement made South Australia an ideal place for resettlement.
- Many came as family groups and many from the same parishes or villages e.g. the parishes of Breage and Germoe lost 27% of their population between 1841-1851, many of whom came to South Australia.

Shipping records used to estimate percentage of Cornish in South Australia

- 1836-1860 ~10.5%
- 1900 ~8%
- A study of surnames in 1900 put total Cornish population at 9.9%.
- A number of Cornish moved to the Victorian goldfields though many returned whilst in later years others went to Broken Hill or Western Australia.
- A number of Cornish also came from other Australian colonies.



SCOTLAND

Declining economy and an increasing population was vulnerable to subsistence crises. Severe famines 1836-37 and 1847-51

- Famine was the most brutal “push” factor in emigration and refugees from both these famines were received in Australia. By 1848 many were pleading with their landlords for passage money to flee the potato famine
- There was a combination of landlords eager to get rid of people and efforts by many to help destitute highlands to leave hopeless economic circumstances
- In South Australia the reverse obtained – an expanding economy needing more labour and capital than was available locally
- In the early 1850s with so many South Australians having gone to the goldfields there was a need for those who would permanently settle and it was thought that family groups with ties to other Scots would be more stable

Scotland (cont.)

- A number of special recruitments from Scotland
- First immigration agent in Adelaide was Handasyde Duncan, a doctor from Glasgow
- Most recruits from Glasgow, Edinburgh and Aberdeen
- A number from Shetland – in 1851 the Shetland Female Emigration Society established
- Two separate groups from the Highlands
- Estimated that in 1861, ~10% of the population was of Scottish origin



CORNWALL

- “A land apart”
 - Cornwall part of the Celtic Fringe of the British Isles (and Brittany) with traditions and identity separate from England as a whole
-
- In 19th century widespread emigration from Cornwall – many settled in South Australia
 - Majority were miners – South Australia had the first metalliferous mining in Australia
 - Downturn in copper mining - collapse in the 1860s
 - Farming suffered periodic depressions, including the 1840s
 - Fishing in decline
 - From 1800-1830s rise in population in mining parishes but subsequent depopulation in the whole of Cornwall thereafter. By 1881 a third of Cornwall’s population had emigrated



IRELAND

Most were free settlers



GERMANY

- First Germans arrived in 1838 from Prussia – religious refugees led by Pastor August Kavel and sponsored by George Fife Angus.
 - Another 100 or so groups followed between 1850 to 1870 with large numbers arriving weekly.
 - In 1841 Pastor Fritzsche brought >200 Lutheran migrants but this was the turning point for Germans coming for religious reasons to economic.
-
- Most Germans came for economic reasons.
 - In 1849 a large number of urban skilled immigrants (the so-called “48-ers” left in 1848 for political reasons.
 - During the early 1850s >2,000 German miners arrived from the Harz

Germany (cont)

- In 1851 about 80 of the 427 underground miners in Burra were Germans who had experience in the Harz, i.e. about 19%

IN SUMMARY

In 1861, approximately

- 83% of South Australia's immigrants had come from the British Isles
- 47% from England and Wales (excluding Cornwall)
- 10% from Cornwall
- 10% from Scotland
- 16% from Ireland
- 11% from Germany
- 6% elsewhere

South Australia DNA Project - time of arrival of ancestors or group members

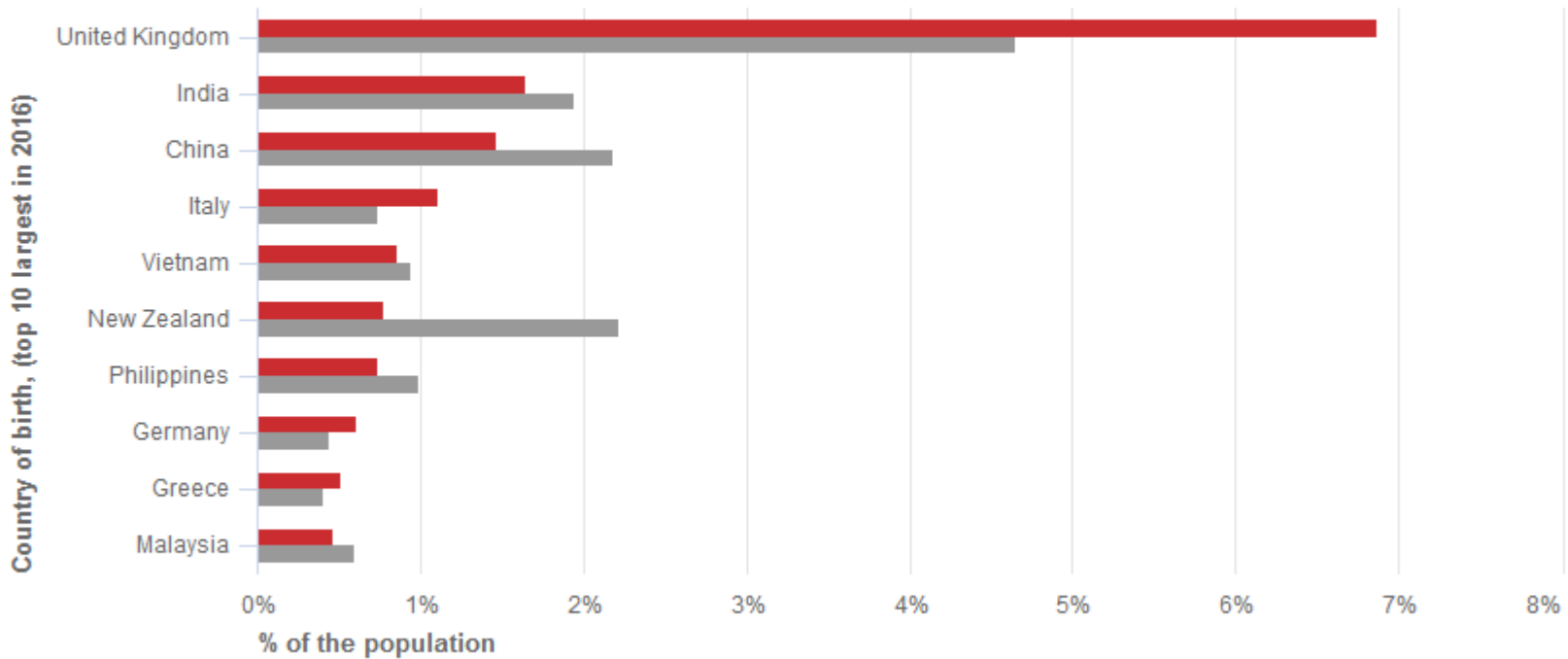
	Male		Female	
	Number	%	Number	%
1836-1845	14	12	13	14
1846-1875	59	51	42	47
1876-1900	17	15	9	10
1901-1925	5	4	6	7
1926-1945	5	4	1	1
1946-1975	10	9	16	18
1976-2000	4	3	2	2
post 2000	0	0	1	1
Total	114		90	

CURRENT POPULATION – OVERSEAS BORN

Birthplace, 2016

export 

 South Australia  Australia



Source: Australian Bureau of Statistics, Census of Population and Housing, 2016 (Usual residence data). Compiled and presented in profile.id by .id, the population experts.

PROJECT RESULTS – ‘average’ ETHNICITY

EUROPE	%
Britain	44.4
Ireland	22.7
NW-Central Europe	15.2
Scandinavia & Baltic	9.1
Eastern Europe (Slav, Hungary)	3.8
Southern Europe	1.8
TOTAL Europe	97.0

Project Results – Ethnicity (cont)

SOUTHERN / SE ASIA

SE Asia Islands	0.06%
Oceania	0.02%
India	0.33%
TOTAL Central/South Asia	1.01%

AFRICA

East Africa	0.28
Central Africa	0.03
West Africa	0.07
South Africa	0.01
TOTAL African	0.39

JEWISH

TOTAL Jewish 0.34%

MIDDLE EASTERN

Middle East	0.01%
TOTAL Middle Eastern	0.01%

AMERICAS

TOTAL 0.03%

atDNA RESULTS (FAMILY FINDER)

Expected and unexpected cousin relationships showed up among members:

- People found they were sitting next to genetic cousins and they didn't know it
- Some were remote cousins, presume mostly back in England (often Cornwall/Devon) or Europe – some had the same ancestral surname(s) in their tree
- Some we have no idea about at all (could have arisen by chance) but still working on finding a common ancestor
- More cousins among SA members than similar groups for Oxfordshire or Tasmania
- Reflects on migration schemes, families emigrating in groups and then encouraging relatives to migrate

FAMILY FINDER MATCHING



Advanced Matches

FILTER ADVANCED VIEW

Choose which tests to compare: *The more options you choose, the longer the report may take.*

Select All Select All Y-DNA Select All mtDNA

Y-DNA12 Y-DNA25 Y-DNA37 Y-DNA67 Y-DNA111 HVR1 HVR2 FMS Family Finder X-Match

Show only people I match in all selected tests Last Name Starts With: (Optional)

Yes No

Show Matches For:

Results Per Page

[Run Report](#)

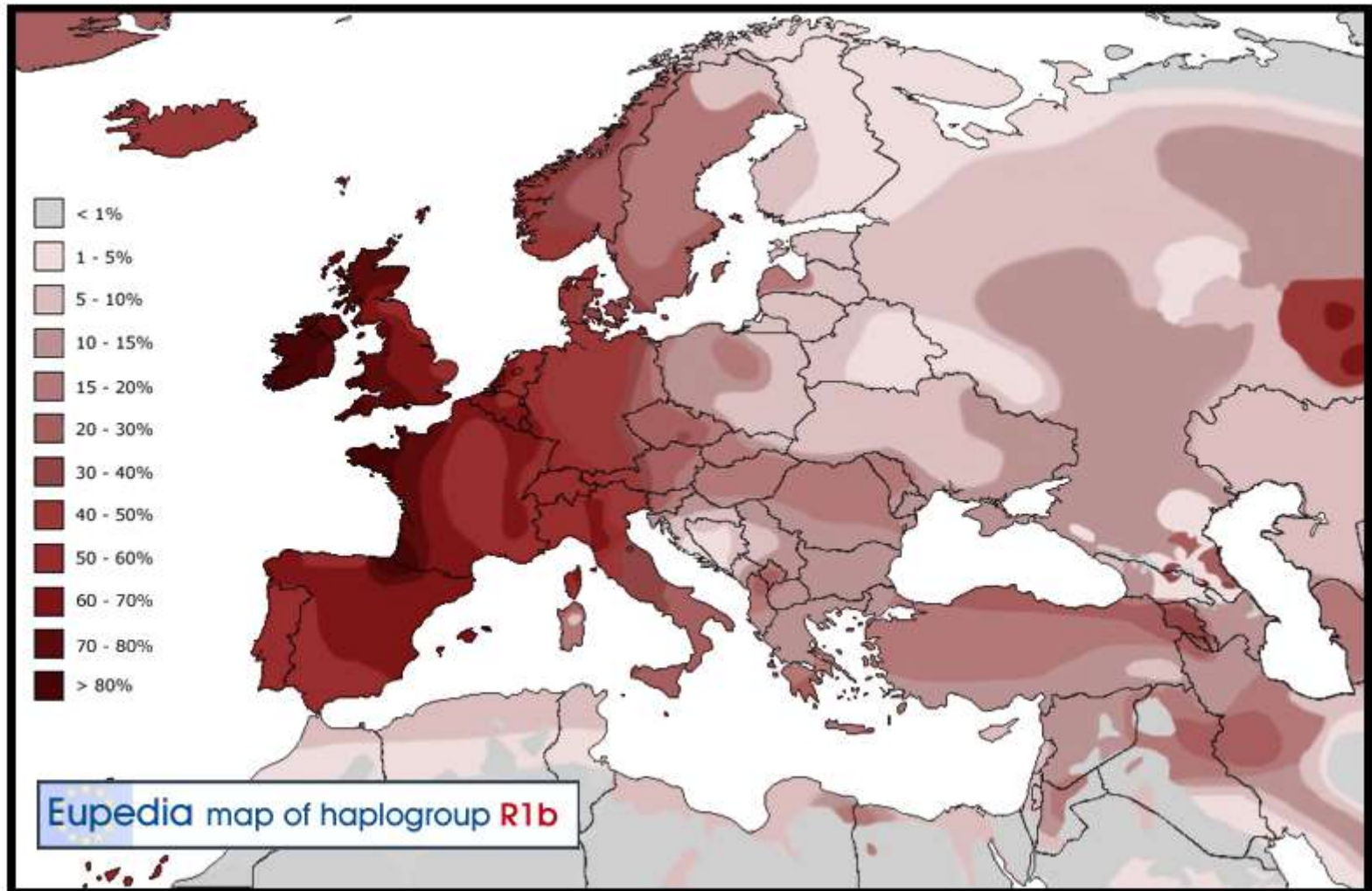
Y-DNA Haplogroup	mtDNA Haplogroup	Family Finder
R-FGC934	H10f	4th Cousin - Remote Cousin
		Full Siblings
R-M269		5th Cousin - Remote Cousin
	H10f	5th Cousin - Remote Cousin

Y-DNA HAPLOGROUPS

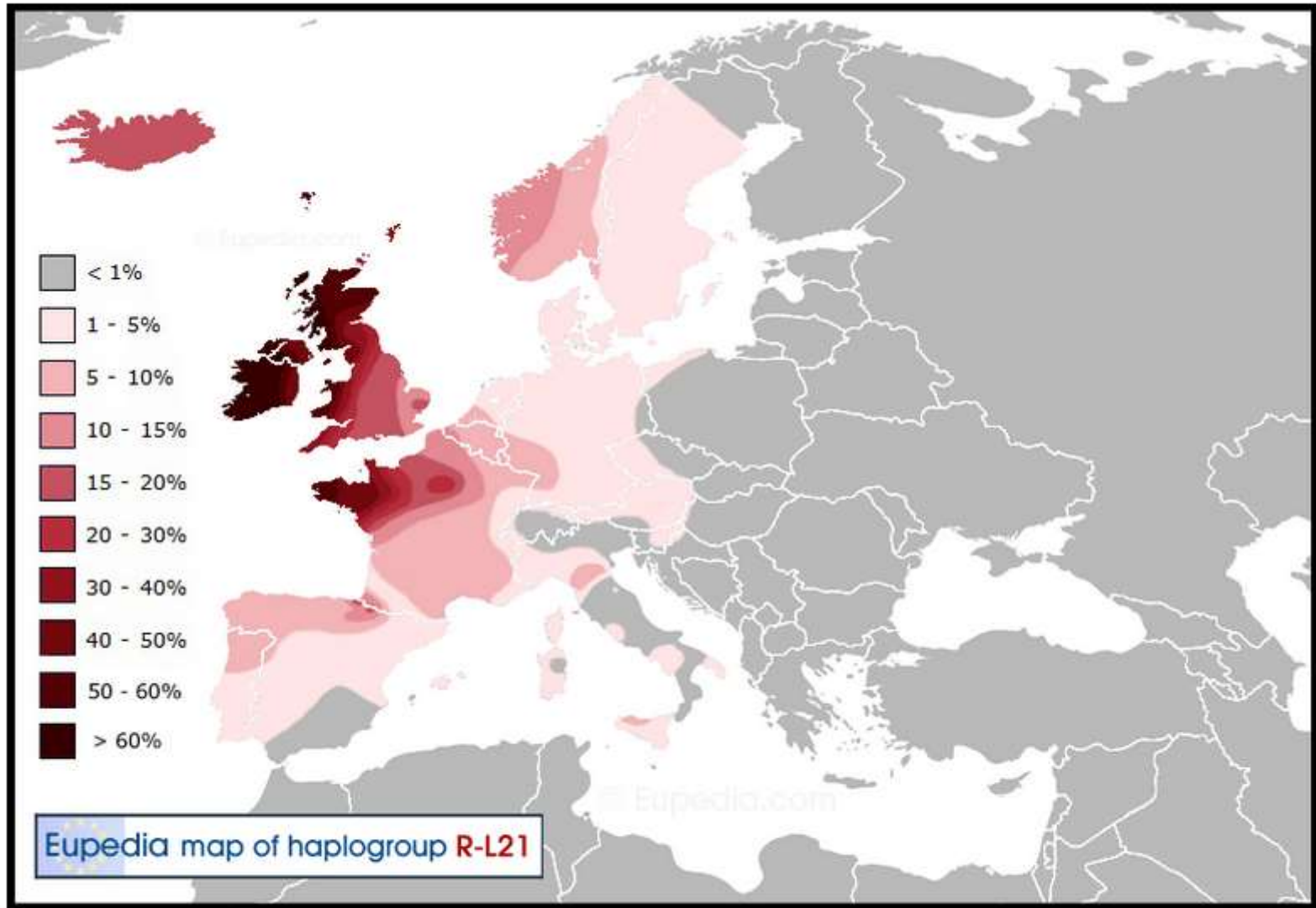
- Majority of males who have tested belong to Haplogroup R1b
- The largest group is R1b (M269)
- Remainder are subgroups of R1b (M269) with subgroup R-L21 the largest of these.
- Other haplogroup R1b subgroups are R-P312, R-U106, R-U152, R-L51
- Just over 10% of men belong to Haplogroup I1 (M253)
- Other Haplogroups, with mostly only a few or one individual are
E, I(M170), I2(M438), Q, R1, R1a(L146), T

Kit Number	Paternal Ancestor Name	Country	Haplogroup	DYS393	DYS390	DYS19	DYS391	DYS385	DYS426	DYS388
Haplogroup E										
328312	Alfred Neal George WARREN, 1901-1977, Scotland	Scotland	I-M170	13	22	14	10	13-14	11	16
Haplogroup I1 [M253]										
171239	Robert Waugh, bn 1734, Jedburgh ROX	Scotland	I-L338	13	22	14	10	12-15	11	14
520163	Wilhelmus Henderikus Jeisman b 1835 anf d 1921	Netherlands	I-YSC0000261	13	22	14	10	13-14	11	14
436422	Samuel Organ, b ca1700 and d. 1760	England	I-M253	13	22	14	10	13-14	11	14
408507	Gabriel Bastian, b1580 Breage, Cornwall	United Kingdom	I-Y3147	13	22	14	10	13-14	11	14
120549	Edward Sage	England	I-M253	13	22	14	10	13-14	11	16
500733	Andrew Lindsay	Scotland	I-M253	13	22	14	10	14-14	11	14
410345	Jonathan Hollister b 1816 d 1861	England	I-M253	13	23	16	10	13-15	11	14
543810	William Alfred Condon, b1860 d 1932	Ireland	I-M253	14	22	14	10	13-15	11	14
152546	Thomas Reynolds c.1735	England	I-Y15505	14	23	14	10	14-15	11	14
Haplogroup I2 [M438]										
228317	Johann Christoph Roeder, b1729 Zellerfeld	Germany	I-A8740	13	24	16	10	14-15	11	13
Haplogroup R1										
517019		United Kingdom	R-M173	13	24	14	11	11-15	12	12
Haplogroup R1a [L146]										
300095	Robert Copland	Scotland	R-S4458	13	25	15	10	11-13	12	12
N109936	Pehr Ohlsson b1718 d 1789 Jomala Åland	Finland	R-YP706	13	25	15	11	11-14	12	12
471389	Karol Skrzypczak 1838-?	Poland	R-M198	13	25	15	11	12-14	12	12
Haplogroup R1b - Subgroup R-L21										
253423	James Edward, b. 1759, Perthshire, Scotland	Scotland	R-S744	13	24	14	10	10-11	12	12

Haplogroup R1b Distribution in Europe

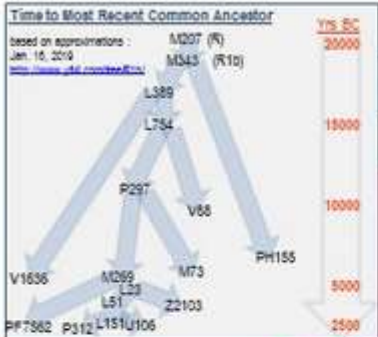


Distribution of haplogroup R1b-L21 (S145) in Europe



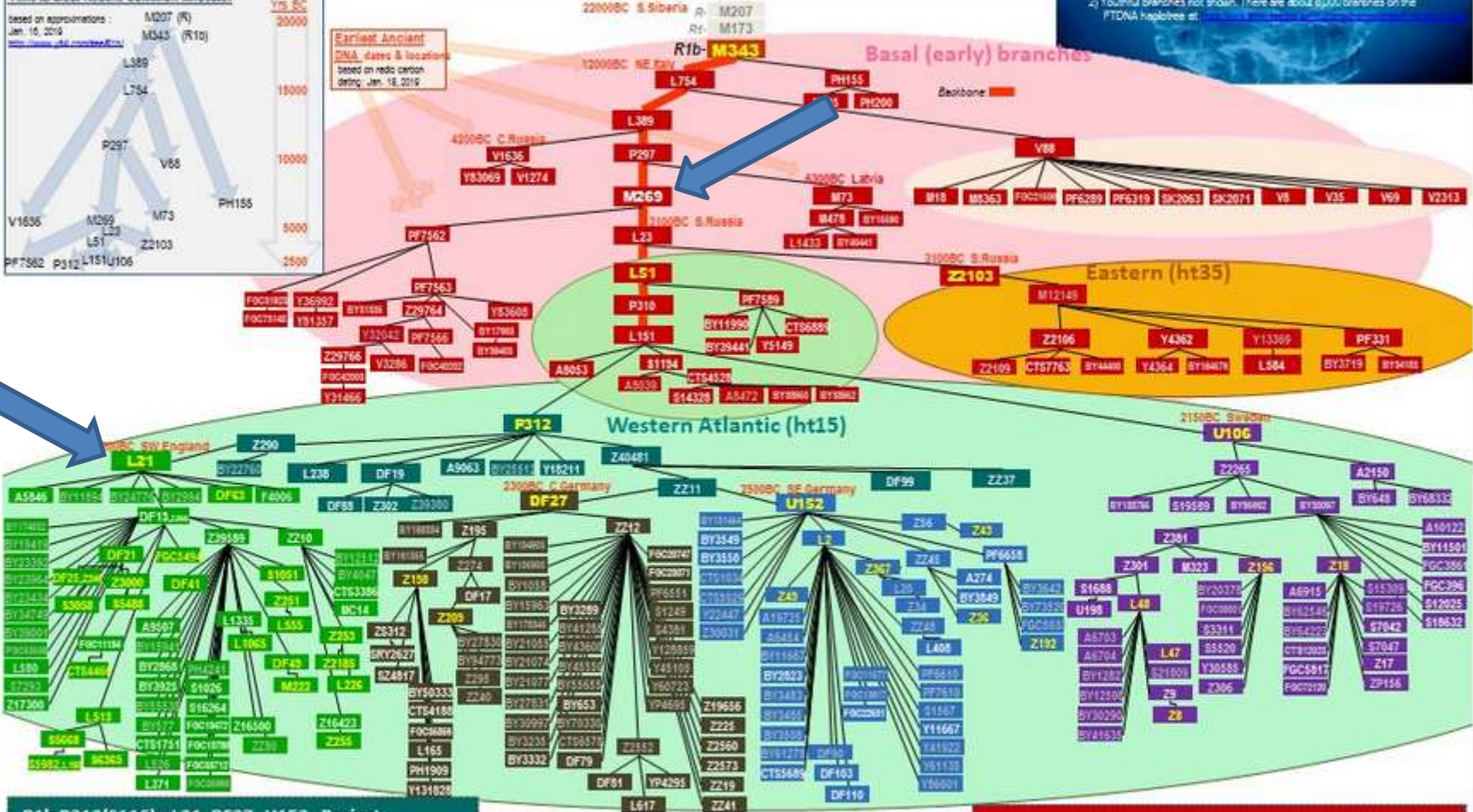
R1b Tip of the Iceberg Descendant Tree

Jan. 22, 2019 Draft: Work in progress from NGS results, primarily Big Y. Based on FTDNA tree. Thank you to fellow hobbyists and volunteer researchers - M.W.Walsh



R1b Descendant Tree (M343, P25, M269 and downstream)

Tip of the iceberg view
 1) Many branches have equivalent SNPs not shown, about 50,000 in total.
 2) Youthful branches not shown. There are about 8,000 branches on the FTDNA haplotype at



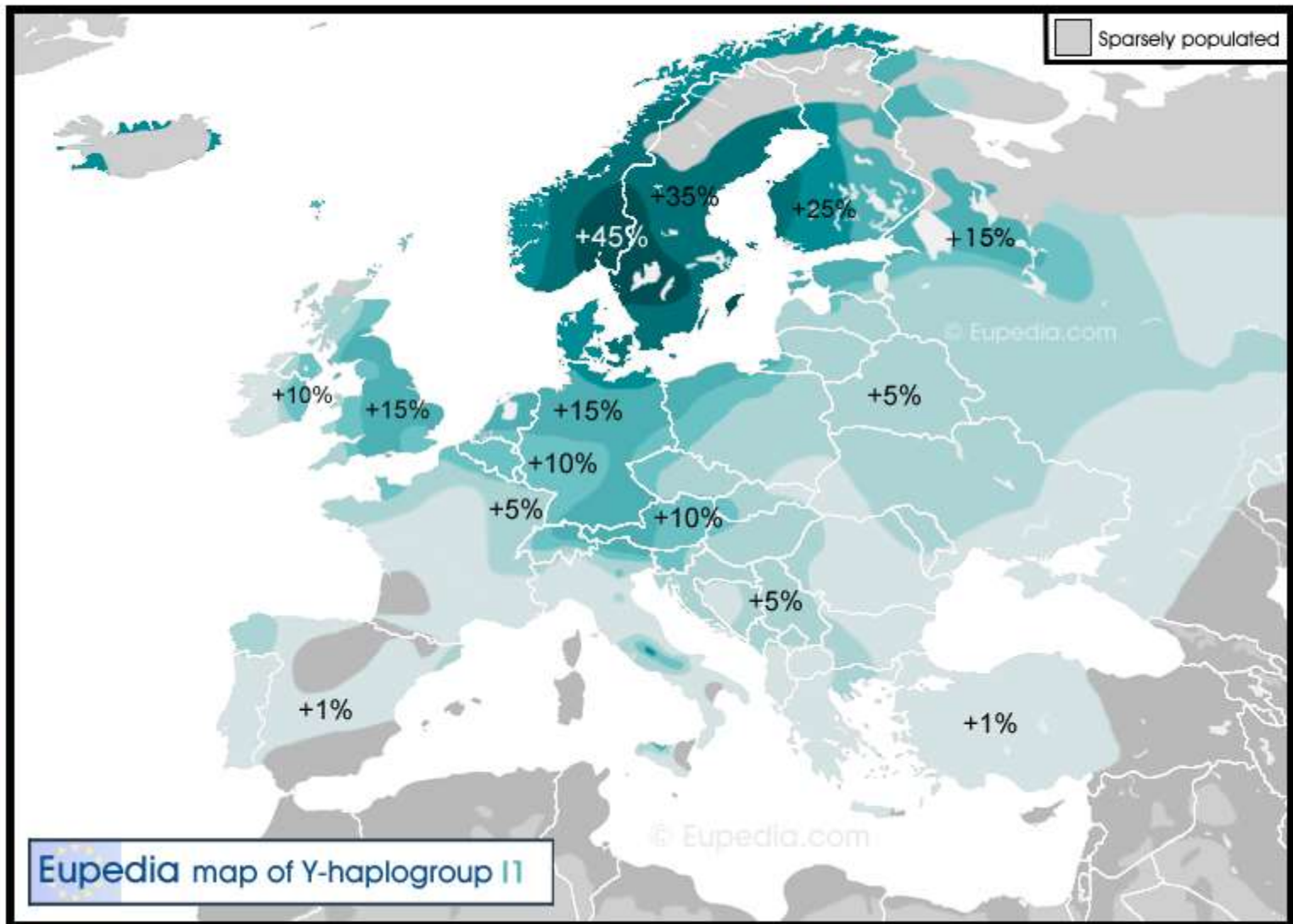
- R1b P312(S116)+ L21-DF27- U152- Project
<http://www.familytreedna.com/groups/R-P312>
- R1b P312>L21(M529)+ (M529) Project
<http://www.familytreedna.com/groups/R-L21>
- R1b P312>DF27+ Project
<http://www.familytreedna.com/groups/R-1b-DF27>
- R1b P312>U152(S28)+ Project
<http://www.familytreedna.com/groups/R-1b-U152>

R1b and All Subclades Project & Gateway
<http://www.familytreedna.com/groups/R-1b>
 All R-M269 predicted or descendant people are invited. We'll help get you to the right place and decide what to test.

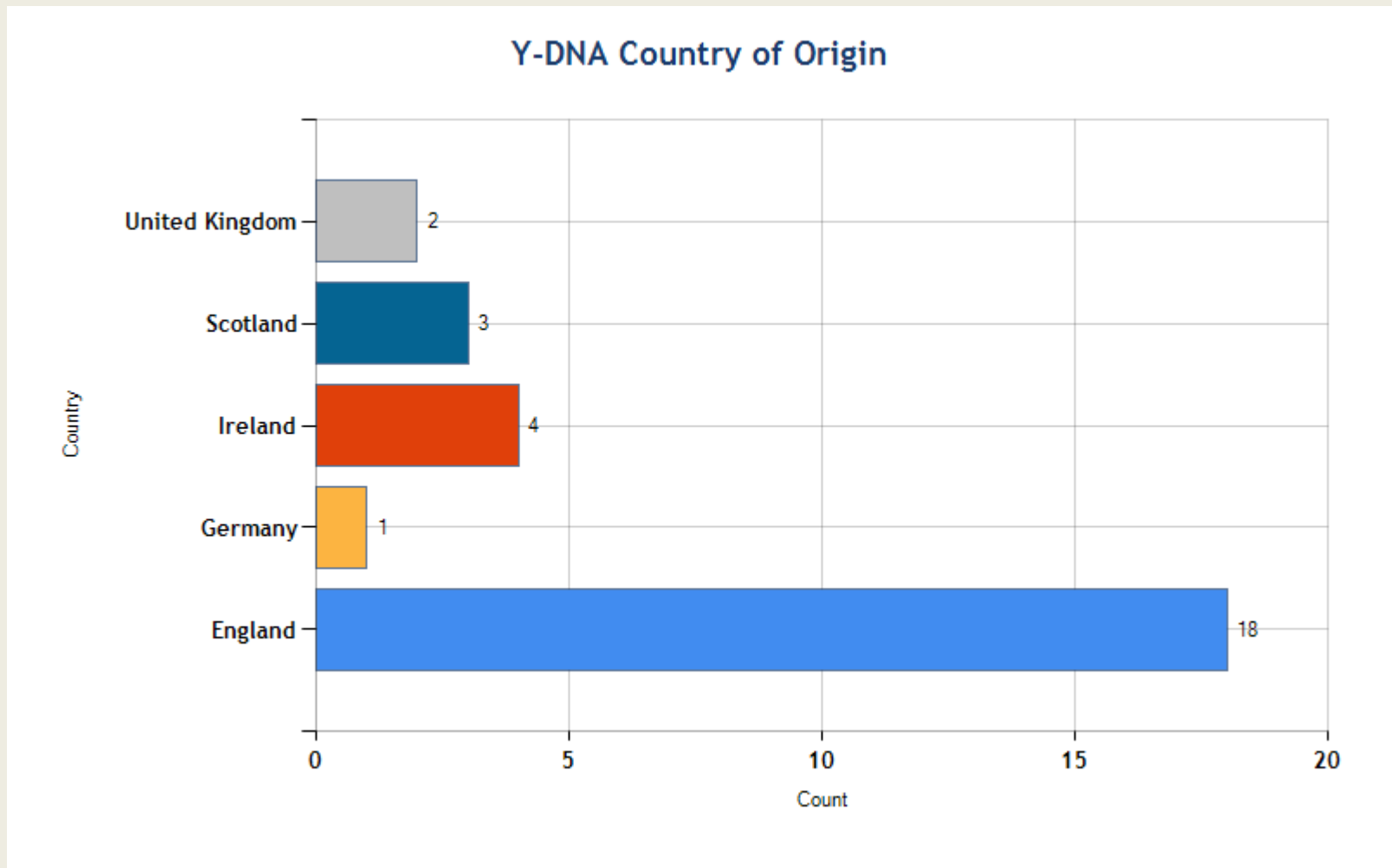
- R1b Basal Subclades M343+ P312- U106- Project
<http://www.familytreedna.com/groups/R-1b-Basal-Subclades>
- R1b U106(S21)+ Project
<http://www.familytreedna.com/groups/U106>

Color legend for SNP names
 Yellow - SNP Pci available to our branches or subclade.
 Pci listing at: <http://www.familytreedna.com/groups/R-1b/PCINames>

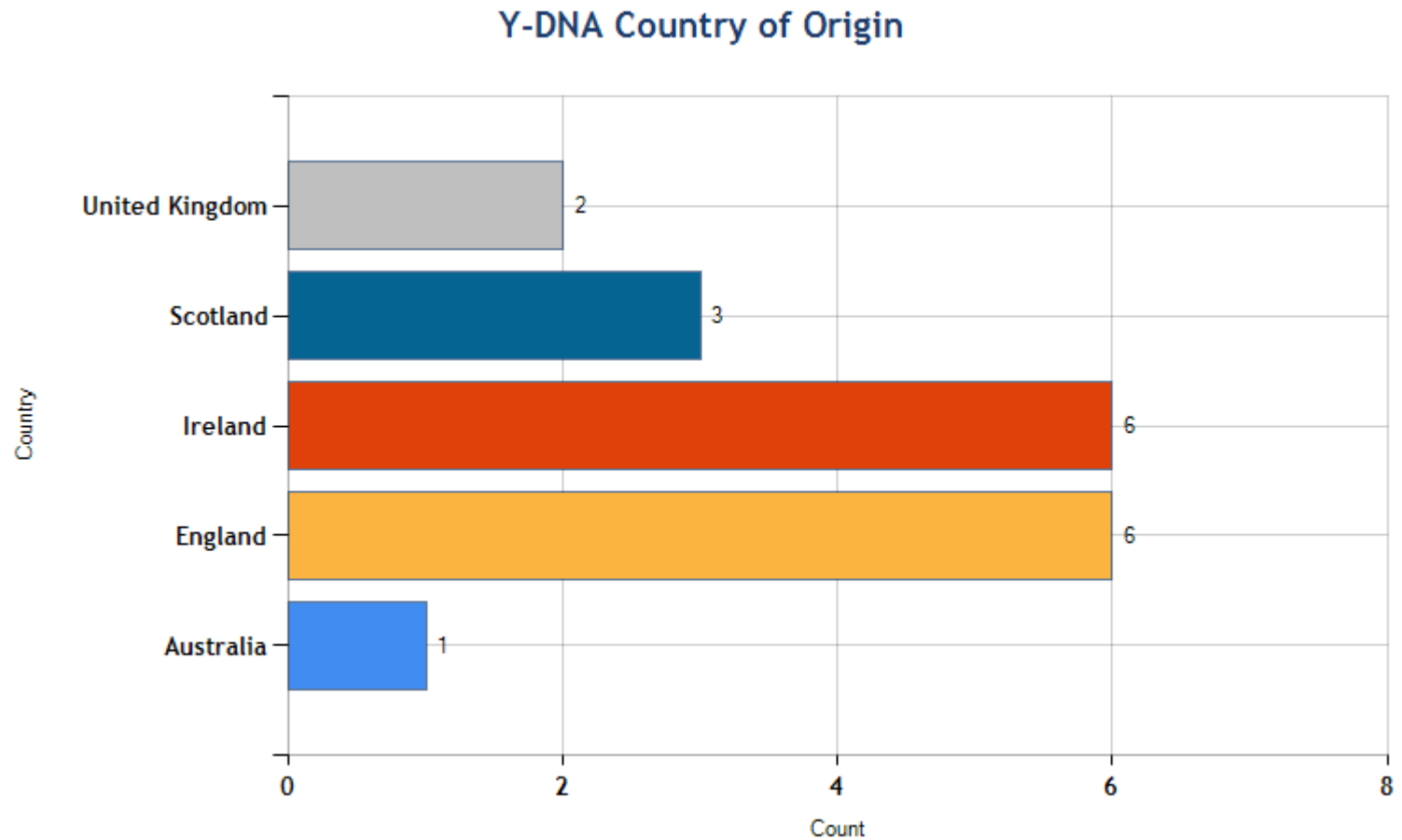
Distribution of haplogroup I1 in Europe



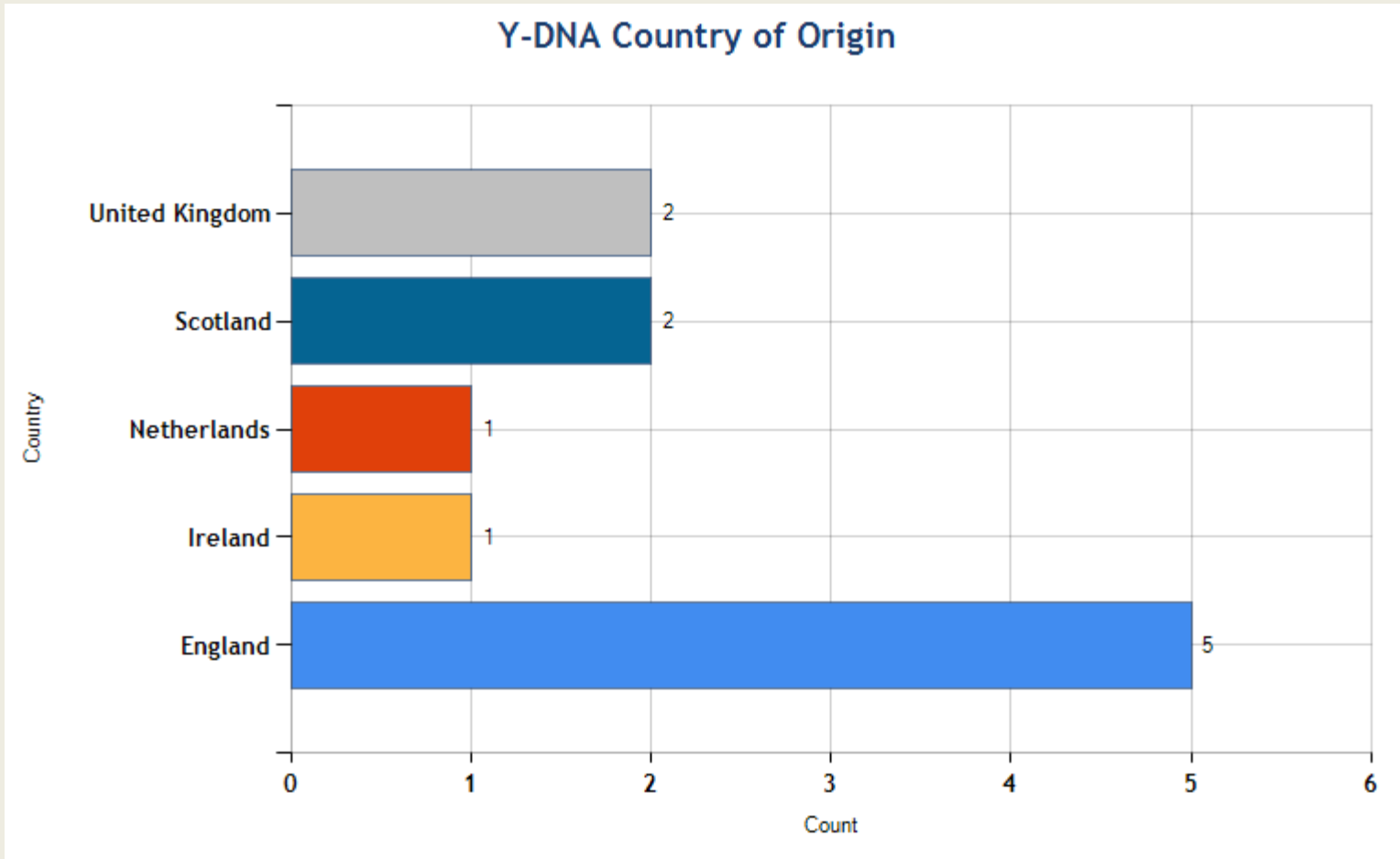
COUNTRIES OF ORIGIN – R1b (M269)



COUNTRIES OF ORIGIN – SUBGROUP R-L21



Y-DNA HAPLOGROUP I1 (M253)



Y-DNA MATCHES

Some members had lots of Y-DNA matches
(world-wide matching)

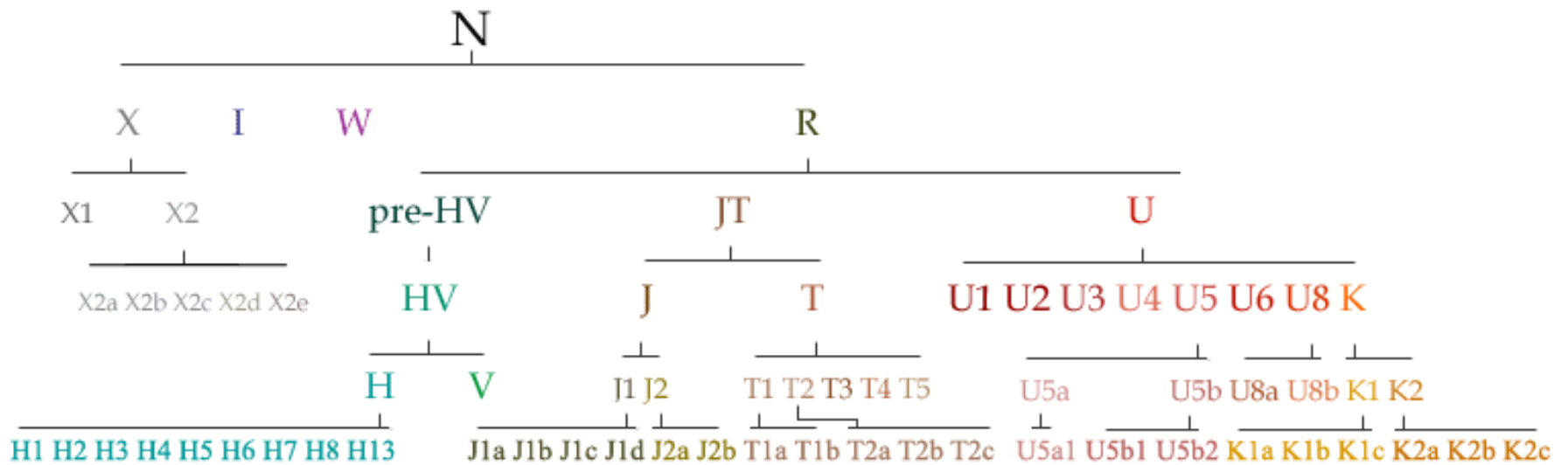
- with their own surname (as expected)
- with their own and different surnames
- only with a different surname (NPEs)
- with no-one at all (about 5-10%)

We learned to expect the unexpected!

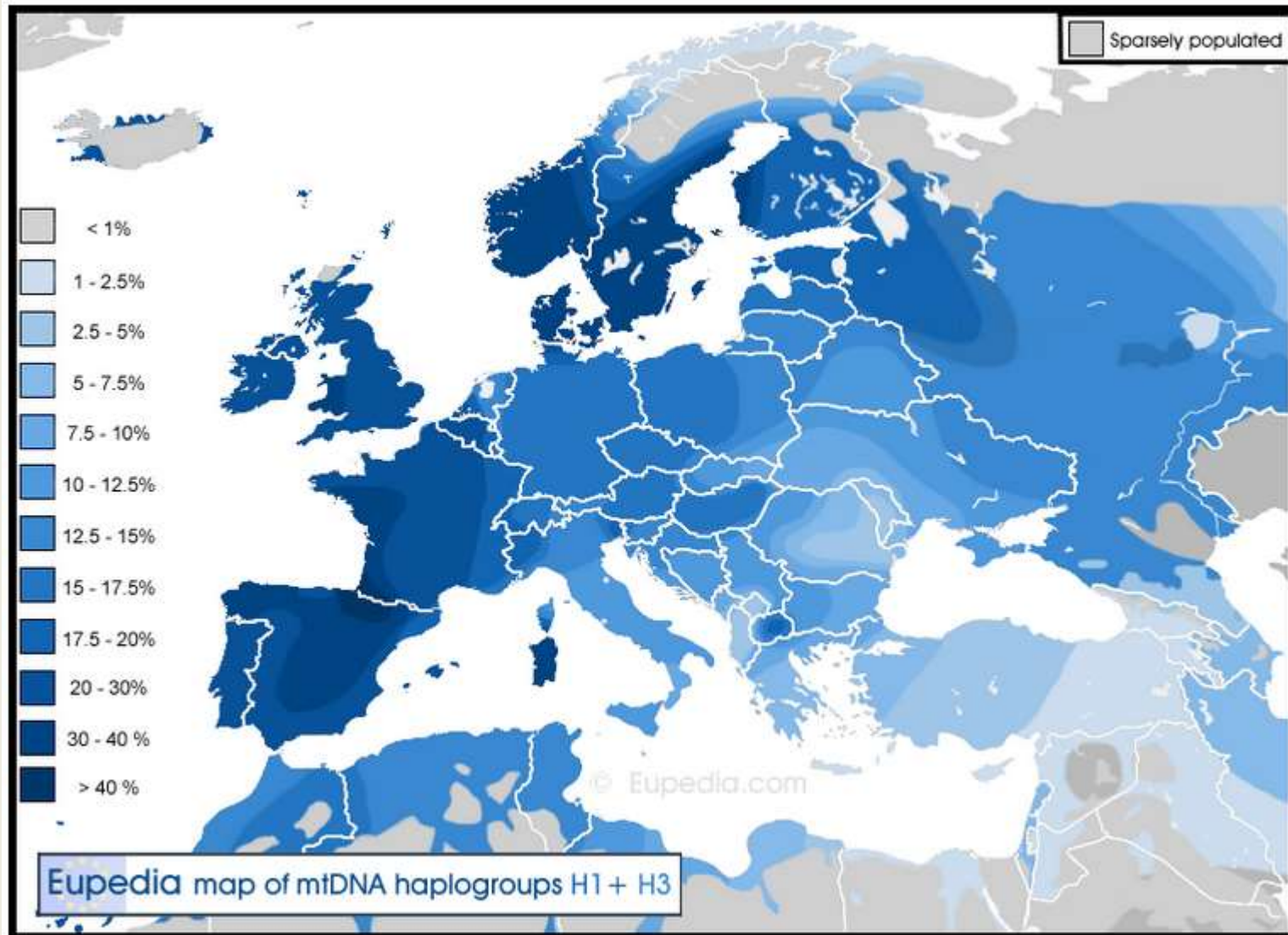
Mt-DNA

SA Project Members			Oxfordshire Project Members	
Haplogroup	Number	%	Haplogroup	%
A	1	1.3	B	0.8
H	34	43.0	H	44.7
HV	1	1.3	HV	1.6
I	3	3.8	I	4.1
J	10	12.7	J	11.4
K	2	2.5	K	4.9
			L	2.4
			M	0.8
N	1	1.3	N	0.8
T	7	8.9	T	8.1
U	9	11.4	U	14.6
V	5	6.3	V	3.3
W	1	1.3	W	1.6
X	5	6.3	X	0.8

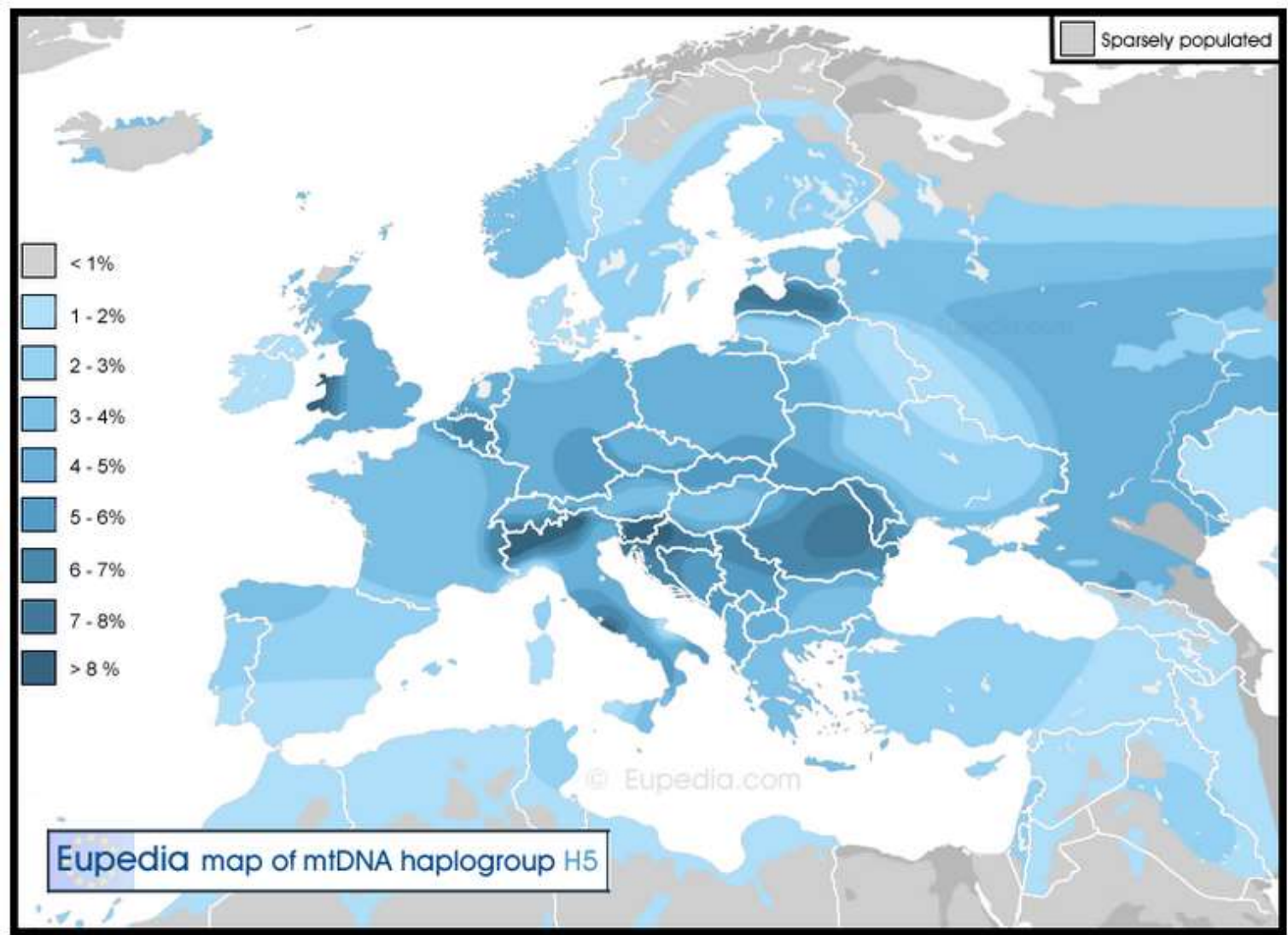
European mtDNA haplogroups chart



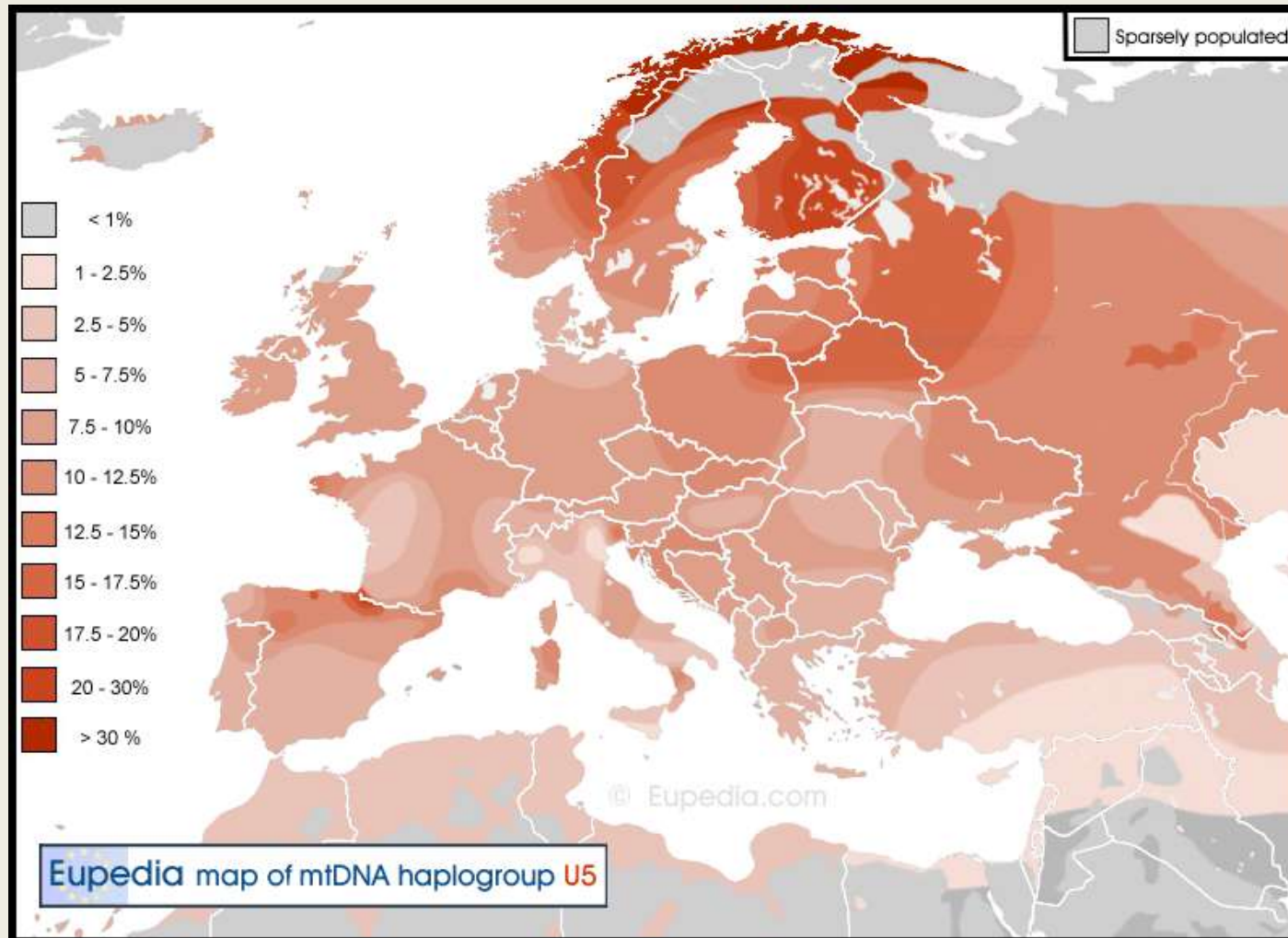
Distribution of H1 and H3 in Europe, North Africa and the Middle East



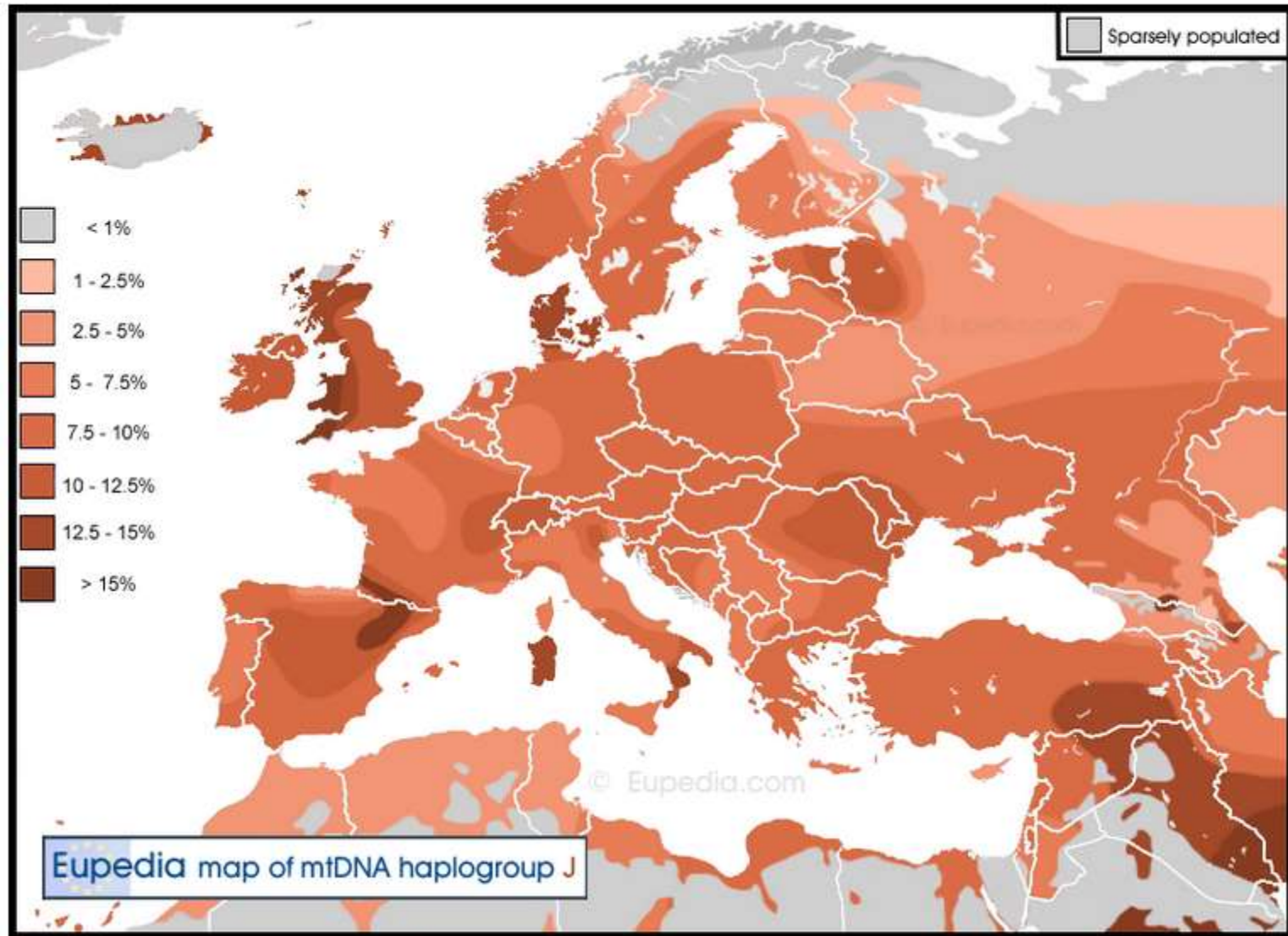
Distribution of H5 in Europe, North Africa and the Middle East



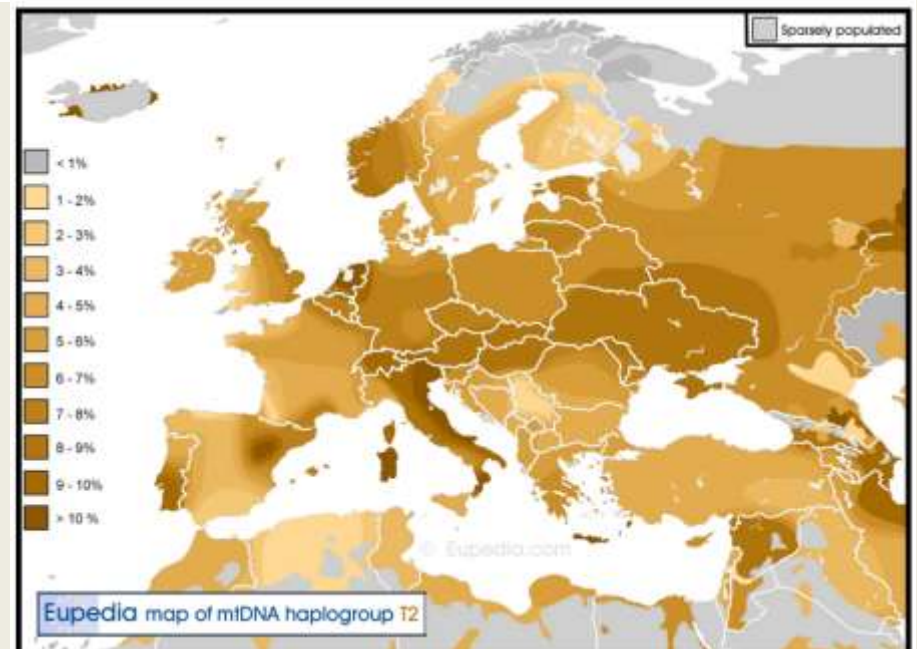
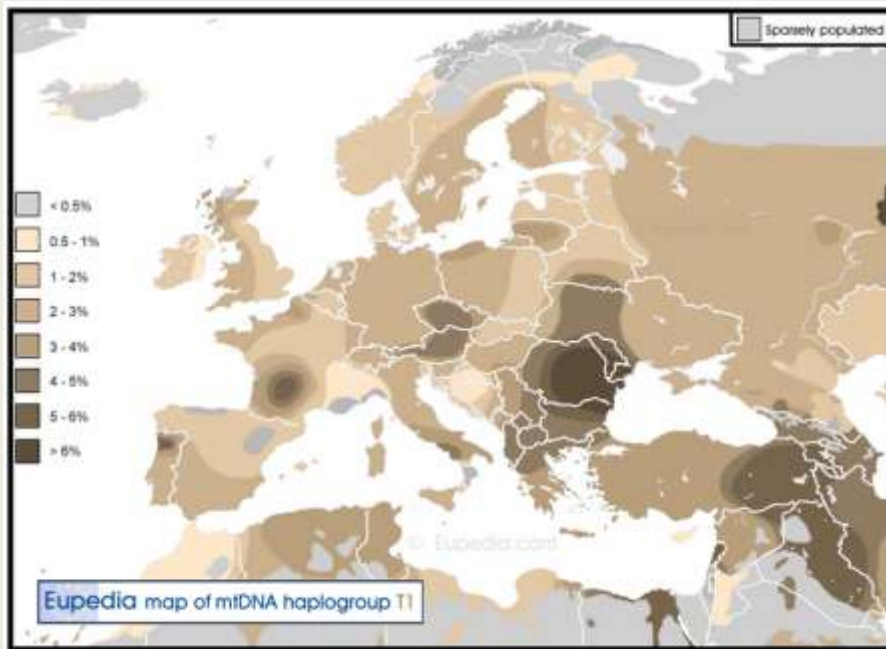
Distribution of U5 in Europe, North Africa and the Middle East



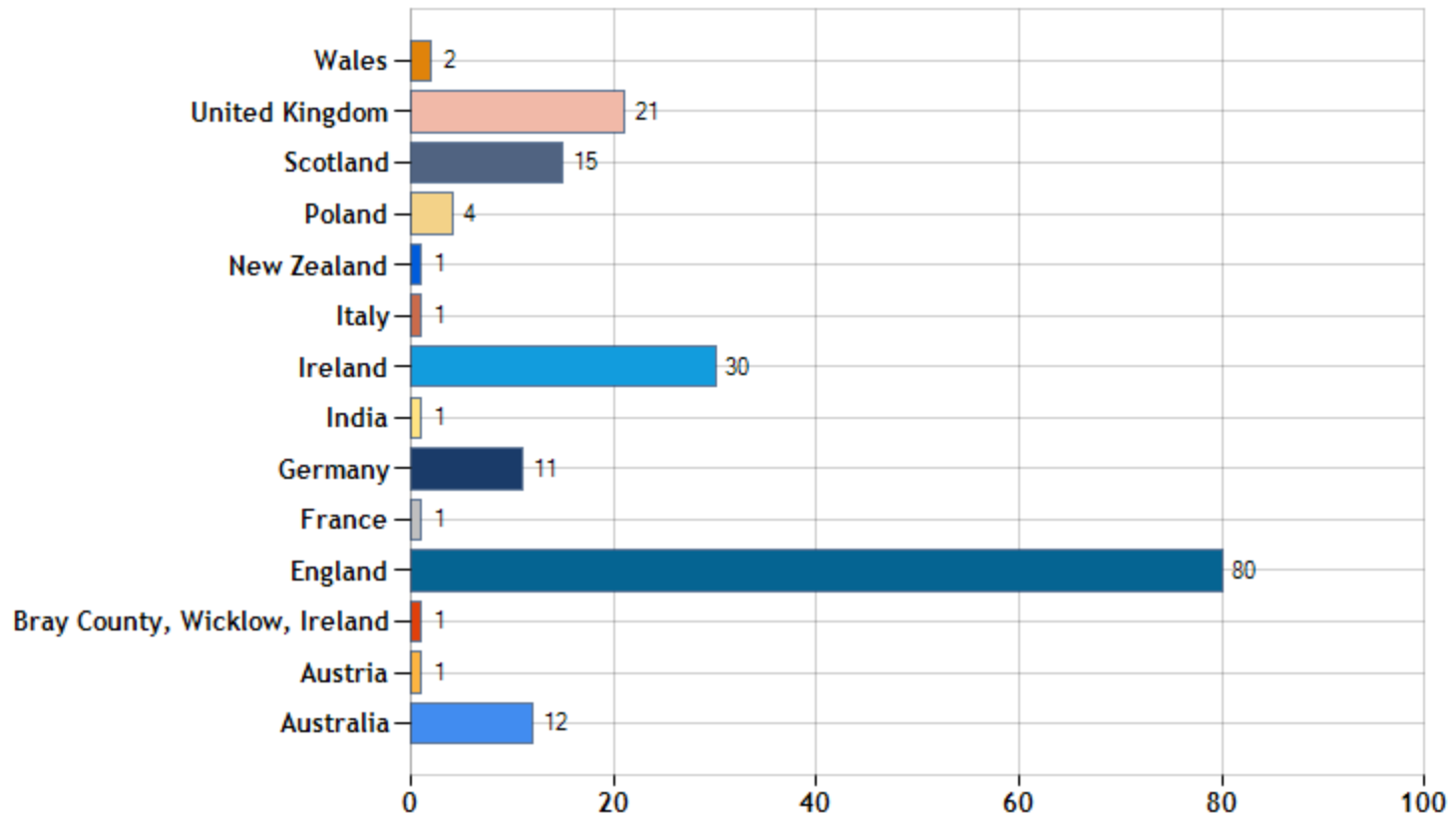
Distribution of mtDNA haplogroup J in Europe, North Africa and the Middle East



Distribution of mtDNA - Haplogroups T1 and T2




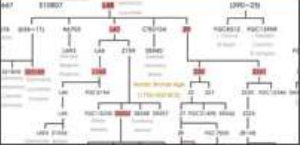
mtDNA Country of Origin





MORE INFORMATION- EUPEDIA.COM


Genetics & Anthropology


**Tracing back ancestry with DNA: which test to choose?**


**Phylogenetic trees of Y-DNA haplogroups**


**Origins & History of mtDNA & Y-DNA Haplogroups**

**Maps of autosomal DNA admixtures (Dodecad)**

**Genetics 101 : interesting facts about DNA**

**With what ethnic group did red hair originate?**

**Ancient European Y-DNA & mtDNA by period**

**Genetic history of the the Benelux & France**

That's all for now!