

Phylogenetic tree showing relationships between 30 locations. The tree is rooted at Raleigh, NC 1 - 190. Major clades include a group of locations in the Northeast and Midwest (Columbus, OH - 75), a group in the Southeast (West Palm Beach, FL), and a group in the South and Midwest (Gainesville, FL). Bootstrap values are shown at the nodes.

Locations and their associated bootstrap values (Q1-Q25) are listed in the table below:

| Location                   | Bootstrap Value |
|----------------------------|-----------------|
| Raleigh, NC 1 - 190        | Q1              |
| Groveport, OH - 0          | Q11             |
| Toledo, OH - 210           | Q2              |
| Newark, DE - 20            | Q12             |
| Norfolk, VA - 160          | Q3              |
| Jacksonville, FL 2 - 10    | Q4              |
| Lexington Park, MD - 35    | Q5              |
| Manassas, VA - 120         | Q6              |
| Columbus, OH - 145         | Q7              |
| Mount Vernon, NY - 20      | Q8              |
| Atlanta, GA - 15           | Q9              |
| West Palm Beach, FL" - 290 | Q10             |
| Bridgeton, NJ - 130        | Q11             |
| Pennsville, NJ - 140       | Q12             |
| Raleigh, NC 2 - 105        | Q13             |
| Bridgeport, CT - 40        | Q14             |
| Bradenton, FL - 100        | Q15             |
| Jacksonville, FL 1 - 40    | Q16             |
| Lancaster, PA - 165        | Q17             |
| Morgantown, WV - 115       | Q18             |
| Raleigh, NC 1 - 130        | Q19             |
| Raleigh, NC 1 - 150        | Q20             |
| Toledo, OH - 100           | Q21             |
| Norfolk, VA - 100          | Q22             |
| Zanesville, OH - 135       | Q23             |
| Manassas, VA - 100         | Q24             |
| Miramichi, NB - 70         | Q25             |
| Columbus, OH - 170         | Q26             |
| Spartanburg, SC - 45       | Q27             |
| West Palm Beach, FL" - 200 | Q28             |
| West Palm Beach, FL" - 270 | Q29             |
| Pennsville, NJ - 50        | Q30             |
| Raleigh, NC 2 - 95         | Q31             |
| Bronx, NY - 0              | Q32             |
| Bradenton, FL - 75         | Q33             |
| Radcliff, KY - 150         | Q34             |
| Lancaster, PA - 55         | Q35             |
| Gainesville, FL - 190      | Q36             |
| Columbus, OH - 70          | Q37             |
| Columbus, OH - 230         | Q38             |
| West Palm Beach, FL" - 195 | Q39             |
| West Palm Beach, FL" - 175 | Q40             |
| Gainesville, FL - 30       | Q41             |
| Gainesville, FL - 185      | Q42             |
| Columbus, OH - 75          | Q43             |
| West Palm Beach, FL"       | Q44             |

Morgantown, WV - 65

Jacksonville, FL 1 - 75

Jacksonville, FL 1 - 140

Norfolk, VA - 100

Norfolk, VA - 60

Bridgeport, CT - 20

Pennsville, NJ - 115

Pennsville, NJ - 150

Pennsville, NJ - 45

Manassas, VA - 95

Bridgeton, NJ - 135

Bridgeton, NJ - 50

Bradenton, FL - 60

Lancaster, PA - 75

Lancaster, PA - 160

Zanesville, OH - 20

Zanesville, OH - 200

Zanesville, OH - 160

Gainesville, FL - 130

Gainesville, FL - 135

Mount Vernon, NY - -5

Lexington Park, MD - 100

Lexington Park, MD - 10

Bronx, NY - 5

Jacksonville, FL 2 - 5

Toledo, OH - 255

Toledo, OH - 180

Newark, DE - 70

Miramichi, NB - 85

Miramichi, NB - 100

Groveport, OH - 85

Groveport, OH - 125

Spartanburg, SC - 10

Toledo, OH - 190

Toledo, OH - 85

Radcliff, KY - 30

Toledo, OH - 195

Groveport, OH - 60

Groveport, OH - 65

Raleigh, NC 2 - 30

Toledo, OH - 140

Raleigh, NC 1 - 45

Toledo, OH - 105

Columbus, OH

Columbus, OH - 135

West Palm Beach, FL - 75

Columbus, OH - 115

Columbus, OH - 150

West Palm Beach, FL - 115

Columbus, OH

Phylogenetic tree showing relationships between various locations and their corresponding Q-tips. The tree is rooted on the left and branches out to the right. Locations are listed next to their respective Q-tip numbers. The tree shows a complex network of relationships, with some locations sharing the same Q-tip number (e.g., Raleigh, NC 1 - 190 and Raleigh, NC 1 - 130 both associated with Q1). The tree is color-coded by location: Raleigh, NC (purple), Groveport, OH (blue), Toledo, OH (green), Newark, DE (red), Norfolk, VA (orange), Jacksonville, FL (yellow), Lexington Park, MD (light green), Manassas, VA (light blue), Columbus, OH (light orange), Mount Vernon, NY (pink), Atlanta, GA (light purple), West Palm Beach, FL (light green), Bridgeton, NJ (light blue), Pennsville, NJ (light orange), Raleigh, NC 2 (purple), Bridgeport, CT (blue), Bradenton, FL (green), Jacksonville, FL 1 (red), Lancaster, PA (orange), Morgantown, WV (yellow), Gainesville, FL (light green), Radcliff, KY (light blue), and Lexington Park, MD (light green).

Locations and Q-tips shown in the tree:

- Raleigh, NC 1 - 190 (Q1)
- Groveport, OH - 0 (Q1)
- Toledo, OH - 210 (Q11)
- Newark, DE - 20 (Q2)
- Norfolk, VA - 160 (Q3)
- Jacksonville, FL 2 - 10 (Q3)
- Lexington Park, MD - 35 (Q4)
- Manassas, VA - 120 (Q4)
- Columbus, OH - 145 (Q5)
- Mount Vernon, NY - 20 (Q5)
- Atlanta, GA - 15 (Q6)
- West Palm Beach, FL" - 200 (Q6)
- West Palm Beach, FL" - 290 (Q6)
- Bridgeton, NJ - 130 (Q7)
- Pennsville, NJ - 140 (Q7)
- Raleigh, NC 2 - 105 (Q8)
- Bridgeport, CT - 40 (Q8)
- Bradenton, FL - 100 (Q9)
- Jacksonville, FL 1 - 40 (Q9)
- Lancaster, PA - 165 (Q10)
- Morgantown, WV - 115 (Q10)
- Gainesville, FL - 190 (Q18)
- Radcliff, KY - 70 (Q17)
- Lancaster, PA - 55 (Q18)
- Gainesville, FL - 185 (Q18)
- Raleigh, NC 1 - 130 (Q11)
- Raleigh, NC 1 - 150 (Q11)
- Toledo, OH - 100 (Q11)
- Zanesville, OH - 90 (Q12)
- Manassas, VA - 10 (Q13)
- Columbus, OH - 170 (Q14)
- Spartanburg, SC - 45 (Q14)
- West Palm Beach, FL" - 270 (Q15)
- Raleigh, NC 2 - 95 (Q16)
- Bronx, NY - 0 (Q16)
- Raleigh, NC 2 - 20 (Q16)
- Bradenton, FL - 75 (Q17)
- Radcliff, KY - 150 (Q17)
- Gainesville, FL - 30 (Q22)
- Raleigh, NC 1 - 40 (Q19)
- Columbus, OH - 75 (Q23)
- Columbus, OH - 70 (Q20)
- Columbus, OH - 230 (Q14)
- West Palm Beach, FL" - 195 (Q21)
- West Palm Beach, FL" - 175 (Q24)
- West Palm Beach, FL" (Q25)

Morgantown, WV - 65

Jacksonville, FL 1 - 75

Jacksonville, FL 1 - 140

Norfolk, VA - 100

Norfolk, VA - 60

Bridgeport, CT - 20

Pennsville, NJ - 115

Pennsville, NJ - 150

Pennsville, NJ - 45

Manassas, VA - 95

Bridgeton, NJ - 135

Bridgeton, NJ - 50

Bradenton, FL - 60

Lancaster, PA - 75

Lancaster, PA - 160

Zanesville, OH - 20

Zanesville, OH - 200

Zanesville, OH - 160

Gainesville, FL - 130

Gainesville, FL - 135

Mount Vernon, NY - -5

Lexington Park, MD - 100

Lexington Park, MD - 10

Bronx, NY - 5

Jacksonville, FL 2 - 5

Toledo, OH - 255

Toledo, OH - 180

Newark, DE - 70

Miramichi, NB - 85

Miramichi, NB - 100

Groveport, OH - 85

Groveport, OH - 125

Spartanburg, SC - 10

Toledo, OH - 190

Toledo, OH - 85

Radcliff, KY - 30

Toledo, OH - 195

Groveport, OH - 60

Groveport, OH - 65

Raleigh, NC 2 - 30

Toledo, OH - 140

Raleigh, NC 1 - 45

Toledo, OH - 105

Columbus, OH

Columbus, OH - 135

West Palm Beach, FL - 75

Columbus, OH - 150

Columbus, OH - 115 (2nd) Q50

West Palm Beach, FL - 115 (2nd) Q51

Columbus, OH