Was the Shawnee War Chief Blue Jacket a Caucasian?[1]

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Abstract. Two distinctly different origins have been ascribed to the great Shawnee war chief Blue Jacket who played a pivotal role in the early history of southwestern Ohio. By one very popular account, he was a captured Caucasian who embraced the ways of the Shawnee and came to lead their warriors in a campaign that unified all the Indian tribes of the Ohio River Valley against the United States of America. In contrast, modern day Shawnee Indians who still bear the Blue Jacket surname suggest that the legendary War Chief was unequivocally a Native American. Y-STR haplotyping of six living, direct male descendants of Chief Blue Jacket and of four direct male descendants/relatives of the Caucasian family that has become intertwined with the history of the Shawnee tribe is described in this study. Barring any questions of the paternity of the Chief's single son who lived to produce male heirs, the "Blue Jacket-with-Caucasian-roots" is not based on reality.

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INTRODUCTION

For more than a century, it has been popularly held that the Tri-State (Ohio, Indiana, and Kentucky) and Michigan Shawnee Indian war chief, Blue Jacket, was actually a Caucasian and not a Native American. Particulars of this legend were first detailed in an 1877 *Daily Ohio State Journal* (Columbus, OH) publication titled "Very Interesting Facts About a Noted Indian Chief" (Larsh 1877). This early Ohio newspaper article declared that Blue Jacket was a Caucasian named Marmaduke Van Swearingen, who eventually rose to the status of Shawnee Indian war chief in 1786—a rank he enjoyed until 1795. The article's author, Thomas Jefferson Larsh, was the great-nephew of Marmaduke Swearingen and his recounting of his family's history may have been biased (Van Trees 2002). Regardless, Larsh's narrative has effectively linked living descendants with the Blue Jacket and Swearingen surnames to a single male founder (Dutch immigrant to the United States, Thomas Swearingen) eight to nine generations removed from the present day.

A distinctly different history is accepted by those who claim direct descent from Chief Blue Jacket himself. By their account, Chief Blue Jacket was born a Shawnee Indian who has been known by at least two additional Indian names over the more than 240 years since his birth: Se pet te he nathe (given name at birth: Big Rabbit, ca 1738) (Sugden 2003), and Wa weyapiersehnwaw (adult chosen name: Whirlpool, ca 1777) (Sugden 2003). Proponents of both histories do agree with the historically verifiable facts that Chief Blue Jacket was a consigner of the Treaty of Greenville on 3 August 1795 (the treaty of peace between the United States of America and all tribes of Indians in the Ohio River Valley) (Kappler 1904) and the Treaty of Fort Industry in 1805 (Peters 1846).

The "Blue Jacket-with-Caucasian-roots" legend portrays him as Marmaduke Swearingen, a son of John Swearingen (1721-1784) (Eckert 1967, 1969). Marmaduke is said to have been captured (along with his younger brother Charles) by the Shawnee Indians during a hunting expedition during the time of the American Revolutionary War. The raid that led to the capture of the then seventeen year old Marmaduke is alleged to have taken place near the Swearingen family home, which was northeast of the junction of the Monongahela and Cheat Rivers, west of Morris Crossroads (northeast of present day Point Marion in southwestern Pennsylvania) (Ellis 1882). Marmaduke is said to have negotiated his own naturalization into the tribe in return for the release of his younger brother. According to this oral tradition, the name Blue Jacket stemmed from Marmaduke's wearing of a blue linsey blouse or hunting shirt at the time of his capture (Larsh 1877). Written and oral accounts have claimed that the young Marmaduke became quite enamored with and dedicated to the way of the Shawnee, garnering him great popularity and admiration and ultimately designation to the status of Chief of the Shawnee by the age twenty-five (Bennett 1943).

However, the "Blue Jacket-with-Caucasian-roots" narrative is inconsistent with verifiable historical records in several ways. While no written record of Chief Blue Jacket's birth is known to exist, historians have estimated the date of his birth to be between 1738 and 1740 (Bailey 1947; Sugden 2003). In contrast, Marmaduke Swearingen's birth is documented in the Swearingen family Bible as occurring on 2 January 1763 near Hagerstown, MD (Whyte 1999). During the mid 1750s and almost ten years before the recorded birth of Marmaduke, Blue Jacket was a recognized trader who was noted in the logs of store keepers in the Ohio River Valley. Specific notations pertaining to Blue Jacket are likely to have been made due to his having been granted credit, an extravagance only afforded to exceptional Indians at the time (Jones 1971). Similarly, in 1765, when Marmaduke would have been only two years old,

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the Shawnee tribe returned all of their captives in compliance with a prisoner exchange program at the cessation of the French and Indian War. One of these prisoners, Margaret Moore, claimed that she had been the wife of Blue Jacket and that he was also the father of her infant son Joseph Moore and her soon to be born daughter, Nancy Moore. Between 1810 and 1824, several land grants recorded with the State of Ohio name both Nancy and Joseph Moore as the "half blood" children of Chief Blue Jacket. One land grant dated 13 July 1824 records that the same Nancy Moore was "one Nancy Stewart (married name), daughter of the late Shawnee Chief Blue Jacket" (Logan County, OH). Blue Jacket's second marital union was said to have been with a woman of French and Indian decent, "Metis" Baby, and resulted in two known sons, James and George I, born in 1765 and 1770, respectively. Marmaduke would have been only two- and seven-years old at the time of these births. In addition, by 1773, when Marmaduke would have been only ten-years old, a town located on a tributary (Deer Creek) of the Scioto River in Ohio was already popularly known as "Blue Jacket's Town" in honor of the Shawnee chief (Bailey 1947). Despite these seeming historical inconsistencies, the Swearingens have vigorously avowed their shared lineage with Chief Blue Jacket (Kansas State Historical Society 1908; Whyte 1999).

The tools of modern molecular biology and genetics have only recently been used to test accounts of oral tradition such as those associated with Chief Blue Jacket. The paternally inherited Y chromosome has become a particularly important tool for such genealogical reconstructions (Jobling 2001) as well as other purposes including: forensics (Jobling and others 1997; Hammer and Zegura 1997); molecular archaeology (Stone and others 1996); nonhuman primate genetics (Stone and others 2002); and human evolutionary studies (Hammer and Zegura 1997; Underhill and others 2000, 2001; Hammer and others 2001; Jobling and Tyler-Smith 2003). Short tandem repeat (STR) loci on the human Y chromosome have been especially useful in that their relatively low mutation rate of approximately 0.21%/STR locus/generation allows the testing of concordance of male-line relation by direct comparison Y-STR haplotypes. The Thomas Jefferson/Sally Hemings affair (Foster and others 1998) and the identification of the remains of Christopher Columbus (Sassaman 2003) are among the more prominent oral traditions that have been directly tested by such patrilineal DNA comparisons. We report here the testing of the two alternative histories pertaining to the Shawnee Indian Chief Blue Jacket by the comparison of twelve-locus-Y-STR haplotypes for: six living male line descendants of Chief Blue Jacket's son, George I Blue Jacket; and four living male line descendants of Thomas Swearingen (Marmaduke Swearingen's paternal great-grandfather).

MATERIALS AND METHODS

Buccal samples were collected from six direct male line descendants of George I Blue Jacket, son of Chief Blue Jacket and his wife "Metis" Baby (Fig. 1). Buccal samples from the Swearingen male line were collected from: two direct male descendants also six generations removed from Charles Swearingen; and one each from direct descendants of Marmaduke Swearingen's paternal great-uncles, Samuel Swearingen and John Swearingen (Fig. 2). DNA donors were informed of the scope of the study prior to their providing written consent for analysis and comparisons of their Y chromosome short tandem repeat (Y-STR) haplotypes. Donor samples were characterized with Promega Y-Plex12® test kits (Applied Biosystems). The resulting amplification products from twelve polymorphic Y-STR loci (DYS391, DYS389I, DYS439, DYS389II, DYS438, DYS437, DYS19, DYS392, DYS393, DYS390, and DYS385a/b) were separated by size via capillary electrophoresis using an Applied Biosystems ABI Prism™ 310 Genetic Analyzer. Y-STR mutation rates were estimated to the upper 95% confidence bound for p as $3/(n + b)$, (where n = the number of germline transmissions and b = 1) using the Bayesian Rule of Three (Jovanovic and Levy 1997). The Y-STR haplotypes of the Blue Jacket and Swearingen families were also compared to the more than 3,000 Y-STR haplotypes contained in the Reliagene (Reliagene Technologies 2005) and PowerPlex® (PowerPlex® 2005) online databases.

RESULTS

All of the six male-line descendants of Chief Blue Jacket have a single twelve-locus Y-STR haplotype (Table 1) in common with each other. Similarly, the Swearingen male-line descendants also have a single twelve-locus Y-STR haplotype (Table 1) in common with each other. However, the Swearingen haplotype is distinctly different from that found in the Blue Jacket male-line descendants, with consistency at only five of the 12 tested

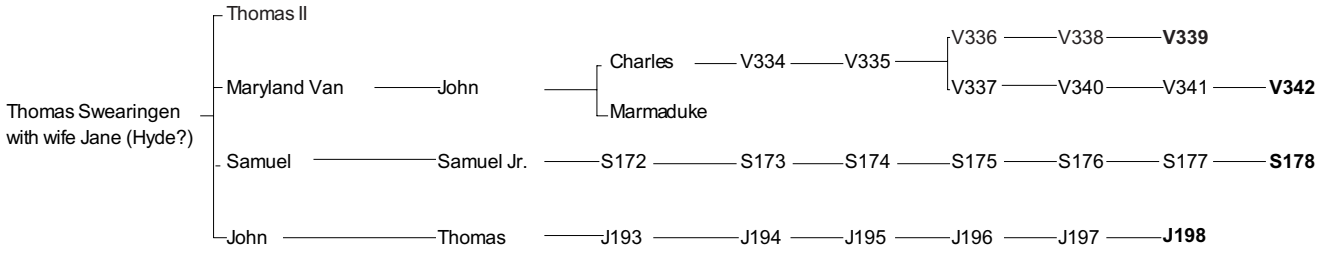

FIGURE 1. Swearingen male-line ancestry. (**Bold-face** numbers correspond to DNA donors for this study. Numbers correspond to reference numbers and names in more detailed genealogical charts.)

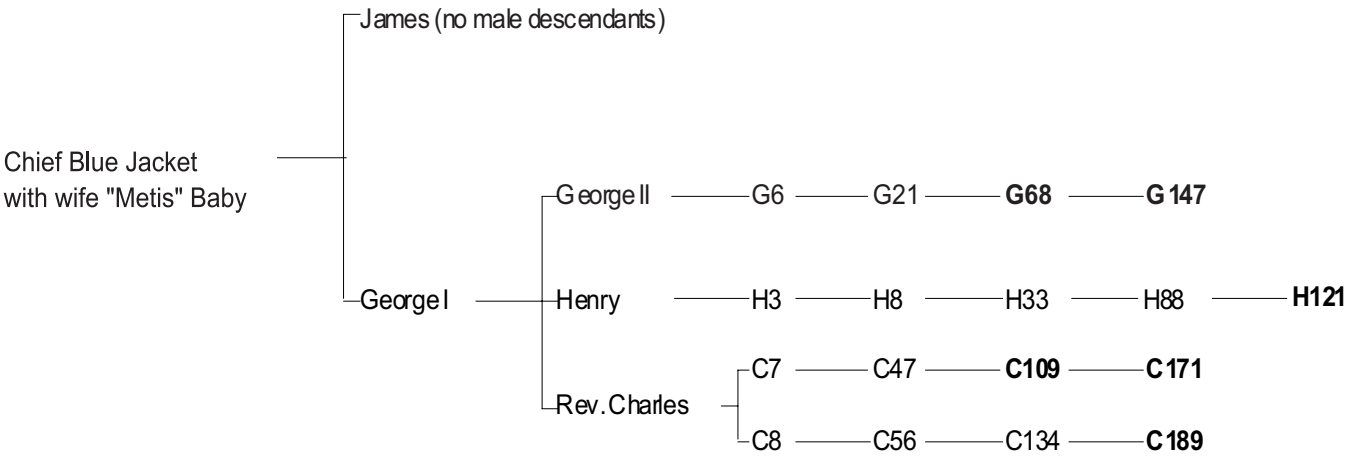

FIGURE 2. Blue Jacket male-line ancestry. (**Bold-face** numbers correspond to DNA donors for this study. Numbers correspond to reference numbers and names in more detailed genealogical charts.)

loci (Table 1). Given that no Y-STR loci repeat expansions or contractions were observed in 51 discrete germline transmissions (Figs. 1, 2) at any of the twelve tested loci, a 95% confidence upper bound for the rate of such mutations was determined to be 4.17×10^{-3} expansions/contractions per locus per germline transmission.

The Blue Jacket Y-STR haplotype yielded no 11 or 12 locus matches to any of the individuals in more than 3,000 Y-STR haplotypes contained in the Reliagene (Reliagene Technologies 2005) and PowerPlex® (PowerPlex® 2005) online databases. The Swearingen haplotype, on the other hand, resulted in numerous 12 locus matches to Reliagene's Caucasian, Native American, African American, and Hispanic subpopulation databases (matching 26 of 452, 7 of 104, 6 of 1605, and 2 of 452 entries, respectively) as well as the PowerPlex® Caucasian, Hispanic, and African American databases (matching 8 of 595, 5 of 630, and 2 of 577, respectively).

DISCUSSION

The inferred 95% confidence upper bound for the rate of such mutations at Y-STR loci in this study (4.17×10^{-3} expansions/contractions per locus per germline transmission) is generally consistent with 0.21%/STR locus/generation mutation rates observed in studies involving thousands of paternity tests (Heyer and others 1997; Kayser and others 2000). This low mutation rate makes Y-STR loci particularly useful in resolving questions of genealogy and parentage dating back hundreds and perhaps even thousands of years in that individuals with shared paternal lineages are likely to have Y-STR haplotypes that are perfectly preserved across such time spans.

It is interesting to note that the Swearingen Y-STR haplotype is relatively common in publicly available Caucasian Y-STR haplotype databases (occurring in more than 5% of the of 452 presumably unrelated Caucasians from around the United States in one database), as well as in other subpopulation databases (perhaps as the result of racial admixture lost in history). In contrast, the Y-STR haplotype observed in each of the six tested individuals with the Blue Jacket surname has not been previously observed in any of the more than 3,000 males whose haplotypes have been included in those same databases. The difference in the observed frequency of occurrence of the two haplotypes may be a result of there being comparatively little representation of individuals of Shawnee descent in these databases.

The discordance of the Blue Jacket and Swearingen Y-STR haplotypes at seven of the twelve tested loci despite the complete invariance of those genotypes within each of the lineages portrayed in Figures 1 and 2 argues strongly against the idea that living individuals

TABLE 1

Male-line Y-STR haplotypes.

Y-chromosome loci	DYS391	DYS389I	DYS439	DYS389II	DYS438	DYS437	DYS19	DYS392	DYS393	DYS390	DYS385a	DYS385b
Blue Jacket haplotype	10	13	12	29	11	14	14	14	13	24	16	18
Swearingen haplotype	11	13	12	29	12	15	14	13	13	23	11	14

with those surnames share a common male ancestor (such as Marmaduke Swearingen's great-grandfather, Thomas) in recent history. It should be noted though, that all the male-line descendants of the Shawnee Chief Blue Jacket that participated in this study trace their lineage back to a single individual: the chief's son, George I. All oral and written accounts obtained from the Blue Jacket family corroborate that George I was Blue Jacket's son. However, it is not possible to definitively establish this aspect of the family's history because, like most American Indians of the time, genealogy and lineage were verbally passed on with no official written records of birth, death, or marital unions. Chief Blue Jacket's final resting place is currently unknown though the Index to the Reports and Collections of the Michigan Pioneer and Historical Society (1904) suggests that he died along the banks of the Detroit River in the winter of 1808 and was laid to rest just west of present day Wyandot, MI, near the final burial site of the Wyandot chief Walk-in-the-Water. Exhumation of his remains and comparison to the haplotypes of the Blue Jacket male-line descendants in this study may be the only way to ultimately resolve any question regarding the paternity of George I Blue Jacket. However, if it is accepted that George I was Chief Blue Jacket's son, it can be reasonably concluded that the famous Shawnee war chief was in fact a Native American and that the popular story surrounding his relatedness to Dutch settlers is without merit.

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Electronic-Database Information

The URLs for data presented herein are as follows:

Reliagene Technologies, Inc. 2005. Y-STR Haplotype Reference Database for US Populations (www.Reliagene.com) (search date 1/21/05).

PowerPlex®. 2005. Y Haplotype Database (www.promega.com) (search date 1/21/05).