

FOR THE RECORD

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Allele Frequencies of D1S80 Locus in the Bharias, a Primitive Indian Tribal Population from Patalkot, India

POPULATION: Bharias

KEYWORDS: forensic science, Bharias, primitive indian tribe, VNTR, D1S80, allele frequencies

“Bharias” are one of the classified primitive Indians. They are located in Chhindwara district of Madhya Pradesh, at “Patal Kot” that is situated amidst dense forests surrounded by high hills of “Satpura ranges” lies between 22°–24′ and 22°–29′ North latitude and 78°–43′ and 78°–50′ East longitude. “Patal Kot” is a bowl shaped formation on the Satpura hills surrounded on three sides by hill ridges like a straight wall thus making “Patal Kot” almost inaccessible. The total population of “Bharias” comprises of 2012 members belonging to 238 families (1).

Seventeen specimens from unrelated volunteer blood donors were analyzed. DNA was obtained from blood specimens using “QIAamp Blood and Tissue kit” (QIAGEN GmbH, Hilden, Germany) according to the manufacturer’s recommended protocol. Amplification was carried out by “AmpliFLP™ D1S80 PCR Amplification Kit” (Roche Molecular Systems, Inc., New Jersey) in a “Gene Amp® PCR system 2400” thermal cycler (Perkin Elmer Corporation, CA) using 5 ng target DNA according to the manufacturer’s recommended protocol. Amplified samples were electrophoresed on “GenePhor” a peltier temperature-regulated electrophoresis unit (Pharmacia Biotech AB, San Francisco, CA) by using “GeneGel Excel 12.5/24 Kit” (Pharmacia Biotech AB, San Francisco, CA) according to the manufacturer’s recommended protocol. Detection of the Variable Number Tandem Repeats (VNTR) at D1S80 locus was performed by “Silver Sequence™ DNA Silver Staining System” Kit (Promega Corporation, Madison, WI). Out of 27 allele at the D1S80 locus 11 allele was found to be present in the population.

Statistical analysis—Allele frequencies were estimated using standard counting procedures (Table 1). The D1S80 locus was tested for Hardy-Weinberg equilibrium by the Chi-square tests (χ^2) throughout.

The complete data set is available to any interested researcher upon request.

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TABLE 1—D1S80 locus allele frequencies in the Bharias.

D1S80 N (17) Allele	Allele Frequency
14	0.0588
16	0.1471
18	0.2353
22	0.0294
24	0.1765
25	0.0294
26	0.0588
27	0.0294
28	0.1176
31	0.0882
36	0.0294
Expected Homozygosity	0.1403
Observed Homozygosity	0.2353
χ^2	0.0643
<i>P</i> (for 1 d.f.)	0.90 > <i>P</i> > 0.75

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