

TABLE 6

CONSANGUINEOUS MARRIAGE IN POPULATION MINORITIES, ISOLATES AND MIGRANTS

Region/country	Location/ community	Collection period	Study population	Sample size	Consanguinity (%)	Consanguinity types	Coefficient of inbreeding (α)	Reference
North Africa								
Sudan	Tir, <i>Dinka</i>	1954	Household survey	375	-	-	0.0015	Roberts (1956)
	Nyertiti, <i>Fur</i>	-	Household survey	99	70.7%	1C,1 ^{1/2} C,2C	0.0415	Bayoumi <i>et al.</i> (1985)
	Nyertiti, <i>Baggara</i>	-	Household survey	46	71.7	1C,1 ^{1/2} C	0.0442	Bayoumi <i>et al.</i> (1985)
South Africa								
Tristan da Cunha	All-island	1961	Pedigree analysis	267	-	-	0.0400	Roberts (1980)
North America								
Canada	New Brunswick, Bathurst	1959	RC dispensation	686	4.8%	1C,1 ^{1/2} C,2C	0.0010	Freire-Maia (1968)

	Quebec, Gaspé	1959	RC dispensation	600	6.0%	1 ^{1/2} C,2C	0.0012	Freire-Maia (1968)
	Newfoundland, Trepassey	1960/79	Pedigree analysis	545	-	-	0.0032	Bear <i>et al.</i> (1988)
	Newfoundland, West Coast	1960/79	Pedigree analysis	613	-	-	0.0171	Bear <i>et al.</i> (1988)
	Newfoundland, Southeast Labrador	1960/79	Pedigree analysis	376	-	-	0.0007	Bear <i>et al.</i> (1988)
U.S.A.	Kentucky, Beech Creek	1942	Household survey	107	18.7%	1C,1 ^{1/2} C,2C	0.0061	Brown (1951)
	<i>Ramah Navaho</i>	1950/64	Pedigree analysis	1,074	-	-	0.0026	Spuhler & Kluckhohn (1989)
	New Mexico, Gallup	1959	RC dispensation	370	1.4	1C,1 ^{1/2} C,2C	0.0004	Freire-Maia (1968)
	Texas, Austin	1959	RC dispensation	675	1.3	1C,2C	0.0006	Freire-Maia (1968)
	Kansas, <i>Mennonites</i>	1980	Pedigree analysis	194	33.0	-	0.0030	Moore (1987)
	Pennsylvania, <i>Amish</i> farmers	1950/-	Pedigree analysis	909	-	-	0.0012	Khoury <i>et al.</i> (1987)
	Pennsylvania, <i>Amish</i> non-farmers	1950/-	Pedigree analysis	1,014	-	-	0.0008	Khoury <i>et al.</i> (1987)
	Boston, <i>Gypsies</i>	1980s	Pedigree analysis	21	61.9	1C,2C,3C	0.0170	Thomas <i>et al.</i> (1987)

South America

Brazil	South, Amerindians	1959/60	Field study	465	13.1%	UN,1C,1 ^{1/2} C,2C	0.0052	Salzano (1961)
	South, Jewish	1959/60	Household survey	150	2.7	1C,1 ^{1/2} C	0.0013	Freire-Maia & Krieger (1963)

Central Asia

Tajikistan	Urgut, Samarkand	-	Household survey	-	-	-	0.0280	Paradeeva & Revasov (1987)
	Taimyr, <i>Nganasans</i>	1974/6	Household survey	223	20.0%	2C	0.0022	Goltzova (1981)
Turkmenistan	Ashkhabad	-	Household survey	1,596	-	-	0.0023	Revasov <i>et al.</i> (1983)
	Nochur	-	Household survey	600	-	-	0.0330	Revasov <i>et al.</i> (1984)
Uzbekhistan	Tersak IV	-	Household survey	-	-	-	0.0190	Ginter <i>et al.</i> (1980)
	Tersak III	-	Household survey	-	-	-	0.0078	Ginter <i>et al.</i> (1980)
	Kizil-Ketman	-	Household survey	-	-	-	0.0109	Ginter <i>et al.</i> (1980)

Zum	-	Household survey	-	-	-	0.0158	Ginter <i>et al.</i> (1980)
Arab-Chona	-	Household Survey	-	-	-	0.0271	Ginter <i>et al.</i> (1980)
Abron	-	Household survey	-	-	-	0.0131	Ginter <i>et al.</i> (1980)

East Asia

Japan	Kurodani	1968/	Household survey	83	9.6%	1C,1 ^{1/2} C	0.0049	Yamamoto <i>et al.</i> (1972)
	Okukurodani	1968/	Household survey	48	29.2	1C,1 ^{1/2} C,2C	0.0124	Yamamoto <i>et al.</i> (1972)
	Arihara	1968/	Household survey	69	47.8	1C,1 ^{1/2} C,2C	0.0184	Yamamoto <i>et al.</i> (1972)
	Mukugawa	1968/	Household survey	83	21.6	1C,1 ^{1/2} C,2C	0.0068	Yamamoto <i>et al.</i> (1972)
	Aso	1968/	Household survey	95	15.8	1C,11/2C,2C	0.0084	Yamamoto <i>et al.</i> (1972)
	Mishima I	-	Household survey	517	15.5	1C,1 ^{1/2} C,2C	0.0075	Fujiki <i>et al.</i> (1982)
	Mishima II	-	Household survey	192	18.8	1C,1 ^{1/2} C,2C	0.0093	Fujiki <i>et al.</i> (1982)
	Nuwajima I	-	Household survey	340	12.4	1C,1 ^{1/2} C,2C	0.0055	Fujiki <i>et al.</i> (1982)

Nuwajima II	-	Household survey	175	6.3%	1C,1 ^{1/2} C,2C	0.0030	Fujiki <i>et al.</i> (1982)
Okishima	-	Household survey	286	24.5	1C,1 ^{1/2} C,2C	0.0110	Fujiki <i>et al.</i> (1982)
Midono	-	Household survey	54	16.7	1C,2C	0.0087	Fujiki <i>et al.</i> (1982)
Kurodani I	-	Household survey	85	9.4	1C,1 ^{1/2} C	0.0048	Fujiki <i>et al.</i> (1982)
Kurodani II	-	Household survey	48	29.2	1C,1 ^{1/2} C,2C	0.0124	Fujiki <i>et al.</i> (1982)
Arihana	-	Household survey	69	47.8	1C,1 ^{1/2} C,2C	0.0184	Fujiki <i>et al.</i> (1982)
Mukugawa	-	Household survey	83	22.9	1C,1 ^{1/2} C,2C	0.0075	Fujiki <i>et al.</i> (1982)
Azo	-	Household survey	95	17.9	1C,1 ^{1/2} C,2C	0.0097	Fujiki <i>et al.</i> (1982)
Tomiyama	-	Household survey	156	27.6	1C,1 ^{1/2} C,2C	0.0115	Fujiki <i>et al.</i> (1982)
Miyama-co	-	Household survey	271	15.7	1C,1 ^{1/2} C,2C	0.0066	Fujiki <i>et al.</i> (1986)

South Asia

India (South)

Andhra Pradesh

Chittoor, <i>Banjara (Lambani)</i>	1972/3	Household survey	167	41.3%	UN,1C	0.0299	Saheb & Naik (1983)
Nelgonda, <i>Banjara (Lambani)</i>	1979/80	Household survey	113	10.6	1C	0.0066	Saheb & Naik (1983)
East Godavari, <i>Konda Reddis</i>	-	-	137	51.8	UN,1C	0.0392	Veerraju (1978)
East Godavari, <i>Koya Doras I</i>	-	-	154	51.3	UN,1C	0.0467	Veerraju (1978)
East Godavari, <i>Konda Reddis II</i>	-	-	152	61.8	UN,1C,2C	0.0398	Veerraju (1978)
East Godavari, <i>Konda Kammaras</i>	-	-	150	65.6	UN,1C	0.0571	Veerraju (1978)
East Godavari, <i>Koya Doras II</i>	-	-	140	70.6	UN,1C,2C	0.0490	Veerraju (1978)
Vishakapatnam, <i>Valmikis I</i>	-	-	119	69.2	UN,1C	-	Veerraju (1978)
Vishakapatnam, <i>Valmikis II</i>	-	-	119	52.1	UN,1C	0.0363	Veerraju (1978)
Vishakapatnam, <i>Bagathas</i>	-	-	123	62.7	UN,1C	0.0427	Veerraju (1978)
Vishakapatnam, <i>Gadabas</i>	-	-	128	60.2	UN,1C	0.0395	Veerraju (1978)

	Srikakulam, <i>Savaras</i>	-	-	100	72.0%	-	-	Veerraju (1978)
	Adilabad, <i>Kolams I</i>	-	-	680	20.0	UN,1C	0.0157	Veerraju (1978)
	Adilabad, <i>Kolams II</i>	-	-	283	45.6	UN,1C	0.0287	Veerraju (1978)
	Adilabad, <i>Raj Gonds</i>	-	-	397	34.5	1C	0.0216	Veerraju (1978)
	Adilabad, <i>Pardhans</i>	-	-	114	53.5	1C	0.0334	Veerraju (1978)
	Adilabad, <i>Andhs</i>	-	-	99	22.2	UN,1C	0.0146	Veerraju (1978)
	Adilabad, <i>Mathuras</i>	-	-	93	6.5	UN,1C	0.0047	Veerraju (1978)
	Mahaboobnagar, <i>Chenchu</i>	1981	Household survey	504	26.4	UN,1C,1 ^{1/2} C	0.0150	Sirajuddin & Basu (1984)
Karnataka	<i>Siddi,</i> Hindu	1980/81	Household survey	47	38.3	UN,AN,1C,2C	0.0263	Vijayakumar & Malhotra (1983)
	<i>Siddi,</i> Muslim	1980/81	Household survey	65	46.2	UN,1C,2C	0.0269	Vijayakumar & Malhotra (1983)
	<i>Siddi,</i> Christian	1980/81	Household survey	156	24.4	UN,AN,1C,2C	0.0169	Vijayakumar & Malhotra (1983)
	Kodagu, <i>Kodava</i>	-	Household survey	535	2.4	1C,1 ^{1/2} C,2C	0.0014	Saheb <i>et al.</i> (1981)

	Kodagu, <i>Amma Kodagu</i>	-	Household survey	130	6.9%	1C,1 ^{1/2} C,2C	0.0032	Saheb <i>et al.</i> (1981)
Tamil Nadu	North Arcot, <i>Irular</i>	1982	Household survey	216	44.0	UN,1C,1 ^{1/2} C	0.0334	Saheb & Bhanu (1983)
Lakshadweep	<i>Koya</i>	1961	Census	176	33.5	1C	0.0210	Roychoudhury (1977)
	<i>Malmi</i>	1961	Census	435	4.1	1C,1 ^{1/2} C	0.0021	Roychoudhury (1977)
	<i>Melacheri</i>	1961	Census	1,471	6.3	1C,2C	0.0039	Roychoudhury (1977)
India (West)	Bombay, <i>Irani</i>	1961/72	Obstetric inpatients	195	22.1	1C,1 ^{1/2} C,2C	0.0091	Undevia & Balakrishnan (1978)
Iran	Khuzestan, SW Iran, <i>Mandaean</i>	2016	Household survey	137	61.3	D1C,1C,1 ^{1/2} C,2C	0.0364	Saadat & Zarghami (2017)
Pakistan	North West Frontier Province (Khyber Pakhtunkhwa)	1996	Household survey	143	21.0%	1C,2C	0.0128	Wahab & Ahmad (2005)

West Asia

Iraq	Hamawand, <i>Kurds</i>	1951	Household survey	21	57.1%	UN,1C	0.0417	Barth (1954)
	South Kurdistan, <i>Kurds</i>	1951	Household survey	46	17.4	UN,1C	0.0122	Barth (1954)
Israel	Samaritans	1960	Household survey	28	46.4%	1C,1 ^{1/2} C,2C	0.0190	Bonné (1963)
	Cochin, Jews	1958	Household survey	59	15.3	UN,1C	0.0117	Goldschmidt (1963)
Lebanon	Palestinians	1998	Household survey	3,972	19.8%	D1C,1C	0.0142	Pedersen (2002)
Jordan	Palestinians	1996	National survey	4,950	26.1%	D1C,1C	0.0186	Pedersen (2002)
	Palestinians	1999	Household survey	2,888	26.0	D1C,1C	0.0178	Pedersen (2002)
Syria	Palestinians	2001	Household survey	4,195	18.3%	D1C,1C	0.0134	Pedersen (2002)

East Europe

Slovakia	Slovak, <i>Roma I</i>	-	Pedigree analysis	34	14.7%	D1C,1C,1 ^{1/2} C	0.0184	Siváková <i>et al.</i> (1994)
	Slovak, <i>Roma II</i>	-	Pedigree analysis	69	10.1	D1C,1C,1 ^{1/2} C	0.0082	Siváková <i>et al.</i> (1994)

North Europe

Great Britain	Orkney	1910/49	Parish records	63	9.5%	1C,2C	0.0017	Roberts <i>et al.</i> (1979)
	Colonsay	1977	Pedigree analysis	65	-	-	0.0023	Sheets (1980)
	Jura	1977	Pedigree analysis	65	-	-	0.0044	Sheets (1980)
	Eriskay, Hebrides	1960/79	RC dispensation	22	18.2	2C	0.0028	Robinson (1983)
	Welsh, <i>Romany</i>	1970s	Pedigree analysis	99	36.3	1C,2C	0.0123	Williams & Harper (1977)
	Birmingham, Pakistani	1982/83	Obstetric inpatients	260	46.9	1C	0.0293	Honeyman <i>et al.</i> (1987)
	Bradford, Pakistani	-	Obstetric inpatients	100	67.0	1C,1 ^{1/2} C,2C	0.0377	Darr & Modell (1988)
	Birmingham, Afro-Caribbean	1986/87	Obstetric inpatients	509	0.4	1C,2C	0.0002	Bundey <i>et al.</i> (1990)

	Bradford, Pakistani	2007/10	Antenatal clinic	5,127	50.9%	1C,1 ^{1/2} C,2C	0.0256	Bhopal <i>et al.</i> (2014)
Ireland (Northern)	All counties, <i>Travellers</i>	1989	Household/ itinerant survey	203	65.5%	1C,<1C	-	Gordon <i>et al.</i> (1991)
Ireland (Republic)	Westmeath, <i>Travellers</i>	1970/86	Household/ itinerant	141	71.6	1C,1 ^{1/2} C,2C	0.0312	Flynn (1986)
Norway	Pakistani	1967/93	Civil registration	7,274	31.0%	>1C,1C	0.0194	Stoltenberg <i>et al.</i> (1998)
	Pakistani (Pakistan-born)	1995/05	Civil registration	1,576	37.5	≥1C,2C	0.0211	Grijibovski <i>et al.</i> (2009)
	Pakistani (Norway-born)	1995/05	Civil registration	386	30.1	≥1C,2C	0.0171	Grijibovski <i>et al.</i> (2009)
	Pakistani (Pakistan-born)	1995/10	Civil registration	8,814	34.7	>1C,1C	0.0217	Sørbye <i>et al.</i> (2014)
	Pakistani (Norway-born)	1995/10	Civil registration	1,801	27.1	>1C,1C	0.0169	Sørbye <i>et al.</i> (2014)
Russian Republic	Archangel (Pinega)	-	-	-	-	-	0.0015	Revasov <i>et al.</i> (1979)
Sweden	North (Junosuando)	1947	Parish records	281	2.8%	1C	0.0018	Böök (1948)
	North, Muonion-alusta	1947	Parish records	191	6.8	1C	0.0042	Böök (1948)

	South	1901/52	Marriage/ parish/birth records	576	1.7%	1C	0.0011	Larson (1956)
	West, Ostmarkt	1901/41	Household survey	535	1.3	1C	0.0008	Böök & Mawe (1955)
	Norrbottn	1946/48	Household survey	8,667	0.4	1C	0.0003	Böök (1957)
South Europe								
Spain	<i>Gitano, Roma/Gypsy</i>	1903/99	Community survey	1,267	18.8%	UN,1C,1 ^{1/2} C,2C	0.0069	Martin & Gamella (2005)
West Europe								
Belgium	All-Belgium, Moroccan	1994/96	Household survey	591	28.0%	1C	0.0175	Reniers (1998)
	All-Belgium, Turkish	1994/96	Household survey	995	22.0	1C	0.0138	Reniers (1998)
Oceania								
Australia	New South Wales, Lebanese	1984/86	Obstetric inpatients	400	35.8%	D1C,1C,2C	0.0128	de Costa (1988)