

TABLE 6

CONSANGUINEOUS MARRIAGE IN POPULATION MINORITIES, ISOLATES AND MIGRANTS

Region/country	Location	Collection period	Study population	Sample size	Consanguinity (%)	Consanguinity types	Coefficient of inbreeding (α)	Reference
Northern 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)
Southern Africa								
Tristan da Cunha	All-island	1961	Pedigree analysis	267	-	-	0.0400	Roberts (1980)
Northern 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)
	Ramah Navaho	1950/64	Pedigree analysis	1,074	-	-	0.0026	Spuhler (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 (Mennonites)	1980	Pedigree analysis	194	33.0	-	0.0030	Moore (1987)
	Pennsylvania (Amish farmers)	1950/-	Pedigree analysis	909	-	-	0.0012	Khoury <i>et al.</i> (1987)
	Pennsylvania (Amish non-farmers)	1950/-	Pedigree analysis	1,014	-	-	0.0008	Khoury <i>et al.</i> (1987)

	Boston (Gypsies)	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 and Krieger (1963)
Central Asia								
Tajikistan	Urgut (Samarkand)	-	Household survey	-	-	-	0.0280	Paradeeva and Revasov (1987)
	Taimyr (Nganasans)	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 Banjara (Lambani)	1972/3	Household survey	167	41.3	UN,1C	0.0299	Saheb and Naik (1983)
Nelgonda Banjara (Lambani)	1979/80	Household survey	113	10.6	1C	0.0066	Saheb and Naik (1983)
East Godavari Konda Reddis	-	-	137	51.8	UN,1C	0.0392	Veerraju (1978)
East Godavari Koya Doras I	-	-	154	51.3	UN,1C	0.0467	Veerraju (1978)
East Godavari Konda Reddis II	-	-	152	61.8	UN,1C,2C	0.0398	Veerraju (1978)
East Godavari Konda Kammaras	-	-	150	65.6%	UN,1C	0.0571	Veerraju (1978)
East Godavari Koya Doras II	-	-	140	70.6	UN,1C,2C	0.0490	Veerraju (1978)
Vishakapatnam Valmiki I	-	-	119	69.2	UN,1C	-	Veerraju (1978)
Vishakapatnam Valmiki II	-	-	119	52.1	UN,1C	0.0363	Veerraju (1978)
Vishakapatnam Bagathas	-	-	123	62.7	UN,1C	0.0427	Veerraju (1978)
Vishakapatnam Gadabas	-	-	128	60.2	UN,1C	0.0395	Veerraju (1978)

	Srikakulam Savaras	-	-	100	72.0	-	-	Veerraju (1978)
	Adilabad Kolams I	-	-	680	20.0	UN,1C	0.0157	Veerraju (1978)
	Adilabad Kolams II	-	-	283	45.6	UN,1C	0.0287	Veerraju (1978)
	Adilabad Raj Gonds	-	-	397	34.5	1C	0.0216	Veerraju (1978)
	Adilabad Pardhans	-	-	114	53.5	1C	0.0334	Veerraju (1978)
	Adilabad Andhs	-	-	99	22.2	UN,1C	0.0146	Veerraju (1978)
	Adilabad Mathuras	-	-	93	6.5%	UN,1C	0.0047	Veerraju (1978)
	Mahaboobnagar Chenchu	1981	Household survey	504	26.4	UN,1C,11/2C	0.0150	Sirajuddin and Basu (1984)
Karnataka	Siddis (Hindu)	1980/81	Household survey	47	38.3	UN,AN,1C,2C	0.0263	Vijayakumar and Malhotra (1983)
	Siddis (Muslim)	1980/81	Household survey	65	46.2	UN,1C,2C	0.0269	Vijayakumar and Malhotra (1983)
	Siddis (Christian)	1980/81	Household survey	156	24.4	UN,AN,1C,2C	0.0169	Vijayakumar and Malhotra (1983)
	Kodagu Kodavas	-	Household survey	535	2.4	1C,1 ^{1/2} C,2C	0.0014	Saheb <i>et al.</i> (1981)

	Kodagu Amma Kodagus	-	Household survey	130	6.9	1C,1 ^{1/2} C,2C	0.0032	Saheb <i>et al.</i> (1981)
Tamil Nadu	North Arcot Irular	1982	Household survey	216	44.0	UN,1C,1 ^{1/2} C	0.0334	Saheb and Bhanu (1983)
India (West)	Bombay (Irani)	1961/72	Obstetric inpatients	195	22.1	1C,1 ^{1/2} C,2C	0.0091	Undevia and Balakrishnan (1978)
Pakistan								
North West Frontier Province	Sikhs	1996	Household survey	143	21.0	1C,2C	0.0128	Wahab and Ahmad (2005)

West Asia

Iraq	Kurds (Hamawand)	1951	Household survey	21	57.1%	UN,1C	0.0417	Barth (1954)
	Kurds (South Kurdistan)	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)
	Jews (Cochin)	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)

Eastern Europe

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

Northern 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 Romany	1970s	Pedigree analysis	99	36.3	1C,2C	0.0123	Williams and 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 and Modell (1988)
	Birmingham (Afro-Caribbean)	1986/87	Obstetric inpatients	509	0.4	1C,2C	0.0002	Bundey <i>et al.</i> (1990)

Ireland (Northern)	All counties (Travellers)	1989	Household/ itinerant survey	203	65.5%	1C,<1C	-	Gordon <i>et al.</i> (1991)
Ireland (Republic)	Westmeath (Travellers)	1970/86	Household/ itinerant survey	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)
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 and Mawe (1955)

	Norrbotten	1946/48	Household Survey	8,667	0.4%	1C	0.0003	Böök (1957)
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Western 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)	1984/6	Obstetric inpatients	400	35.8	D1C,1C,2C	0.0128	de Costa (1988)
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