

TOTAL FINGER RIDGE COUNT IN A SERBIAN POPULATION SAMPLE

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This paper presents an analysis of fingerprints obtained from 400 Serbian males and females from Novi Sad, Jugoslavija. The total ridge count of fingers is very important in the study of genetical variation of human population. The information on these traits among Serbians is relatively scanty, only one study has been reported so far on Serbians (Abel, 1940).

MATERIAL AND METHODS

The fingerprints were collected among the students, middle schools children and adult males and females workers in Novi Sad in North Serbia (Vojvodina) during 1970—1971. Our sample is comprised of 200 males and 200 females ranging from 15 to 60 years of age.

The dermatoglyphic prints were taken by the technique described by Weiner S. J. and Lourie A. J. (Weiner, Lourie, 1969) using senziting fluid Faurot inc. obtainable from New York.

In patterns with two triradii only the higher ridge counts have been taken into consideration.

TAB. 1
Finger ridge-counts in the Novi Sad sample

Digit	Males (N = 200)			Females (N = 200)		
	\bar{X}	SD	KV	\bar{X}	SD	KV
Right						
I	17.80	5.50	30.89	15.45	5.60	36.24
II	15.55	6.30	40.51	13.55	4.90	36.70
III	14.50	4.75	32.75	12.85	3.60	28.01
IV	17.15	5.50	32.06	15.85	4.80	30.28
V	17.10	4.75	27.77	12.98	4.40	33.89
Left						
I	16.70	6.60	39.52	17.15	6.15	35.86
II	14.30	6.10	42.65	13.05	5.10	39.08
III	14.90	4.05	27.18	13.40	4.55	33.95
IV	17.20	5.40	31.39	15.50	5.40	34.83
V	15.50	4.60	29.67	13.80	4.85	35.14
TOTAL (TRC)	141.75	44.88	31.66	124.45	46.90	37.68
<i>t</i>			3.76*			

RESULTS

The data are given in tables 1 and 2.

TAB. 2
Novi Sad: percentage frequencies of digital pattern types and the index of pattern intensity

Sex	Total fingers	Whorls	Ulnar loops	Radial loops	Total loops	Arches	PT
Male	2000	29.75	60.15	5.25	65.40	4.85	12.49
Female	2000	28.40	61.65	3.20	64.85	6.75	12.16
Total	4000	29.07	60.90	4.22	65.12	5.80	12.23

There is significant sex difference for total ridge count ($t = 3.76$ for $P = 0.05$). The standard deviation of females (46,90) is slightly higher than that of males (44,88).

The arch frequencies (5.80 %) are higher and the whorl frequencies are lower (29.07 %) than published figures for Serbians (Abel, 1940) which range from 4.3 % for arches and 30.3 % for whorls. The pattern intensity index for our sample (12.23) is little reduced in relation to the data of Abel for Serbians (12.60).

Fig. 1 and fig. 2.

Means for total ridge counts in different populations are given in table 3.

TAB. 3
Means for total ridge counts in different populations

Population	Males	Females	Source
Serbians	141.75	124.45	Present study
Hungarians	135.61	128.69	Thoma A. 1969 (5)
British	144.98	127.23	Holt, 1955 (3)
French	132.36	121.36	Lamy et al. 1957 (4)

As shown by table 3 the mean of Novi Sad males approaches its upper limit, that of the females lies within the range of the means of corresponding sex.

SUMMARY

Fingerprint data of 200 male and 200 female Serbians from Novi Sad are given. The means of the total digital ridge count are 141,75 in the males and 124,45 in the females. These Serbian figures are compared with those from other populations.

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