Soome laht ja kliima minevikus

Andres Tarand

TALLINN SOURCES

PORT JOURNALS, CUSTOM BOOKS 1339 –
TOWN COUNCIL MINUTES
CORRESPONDENCE
- TOWN COUNCIL
- CLAYHILLS´ DEPARTMENT STORE 1690 –
EARLY WEATHER OBSERVATIONS 1784 –
NEWSPAPERS (R.W.N. 1772 -; OTHERS 1821 -)
SYSTEMATIC ICE OBSERVATIONS (TALLINN STOCK EXCHANGE COMMITTEE 1858 -)
METEOROLOGICAL STATIONS 1903 –
OTHER SOURCES (E.G. 1918 WAR HISTORY)

THE SPEED OF CORRESPONDENCE IN 1418-1824 (153 CASES)

DESTINATION		DATE	BY SEA OR LAND	TRIP DURATION IN DAYS	AVERAGE SPEED KM/DAY		SOURCE
		OLD STYLE			BY LAND	BY SEA	
Lüübek	1418	.06-11.06	meri	6		200	Hensius, 1986
Lüübek	1432	10.04-17.04	meri	7		179	Hansarecesse..., 1876
Lüübek	1432	13.04-20.04	meri	7		179	Saß, 1955
Lüübek	1442	4.05-12.05	meri	8		156	Hansarecesse..., 1878
Lüübek	1462	8.05-1.07	maa	54	34		Hansisches..., 1899
Lüübek	1462	8.05-26.06	maa	49	41		Hansisches...,1899
(Riia)-Tallinn	1507	22.03-22.04	meri ja maa	30			Hanserecesse..., 1881
Tallinn	1508	14.04-21.04	meri	7		57	Hansarecesse...,1888
Riia	1508	23.03-12.04	meri	20		35	Hansarecesse..., 1881
Tallinn	1509	11.03-14.04	meri	34		37	Hanserecesse..., 1881
Lüübek	1511	13.04-4.06	maa	52		32	Hansarecesse..., 1899
Tallinn	1523	4.04-10.04	maa või meri	6	32	75	TLA 230, 1, 133
Tallinn	1525	12.03-24.04	meri	44		14	TLA 230, 1, 1144
Tallinn	1527	17.10-14.11	meri	28		43	TLA 230, 1, 1144
Lüübek	1528	23.10-23.11	meri	30		42	TLA 230, 1, BB40
Tallinn	1529	13.11-2.02	maa	81	24		TLA 230, 1, BB40
Tallinn	1532	9.02-5.04	meri või maa	56	43	36	TLA 230, 1, 133
Tallinn	1533	4.12-10.01	meri	37		53	TLA 230, 1, BB40
Lüübek	1534	10.04-23.04	meri	13		96	Koehler, 1936
Lüübek	1534	5.12-30.01	maa	56	36		Koehler, 1936

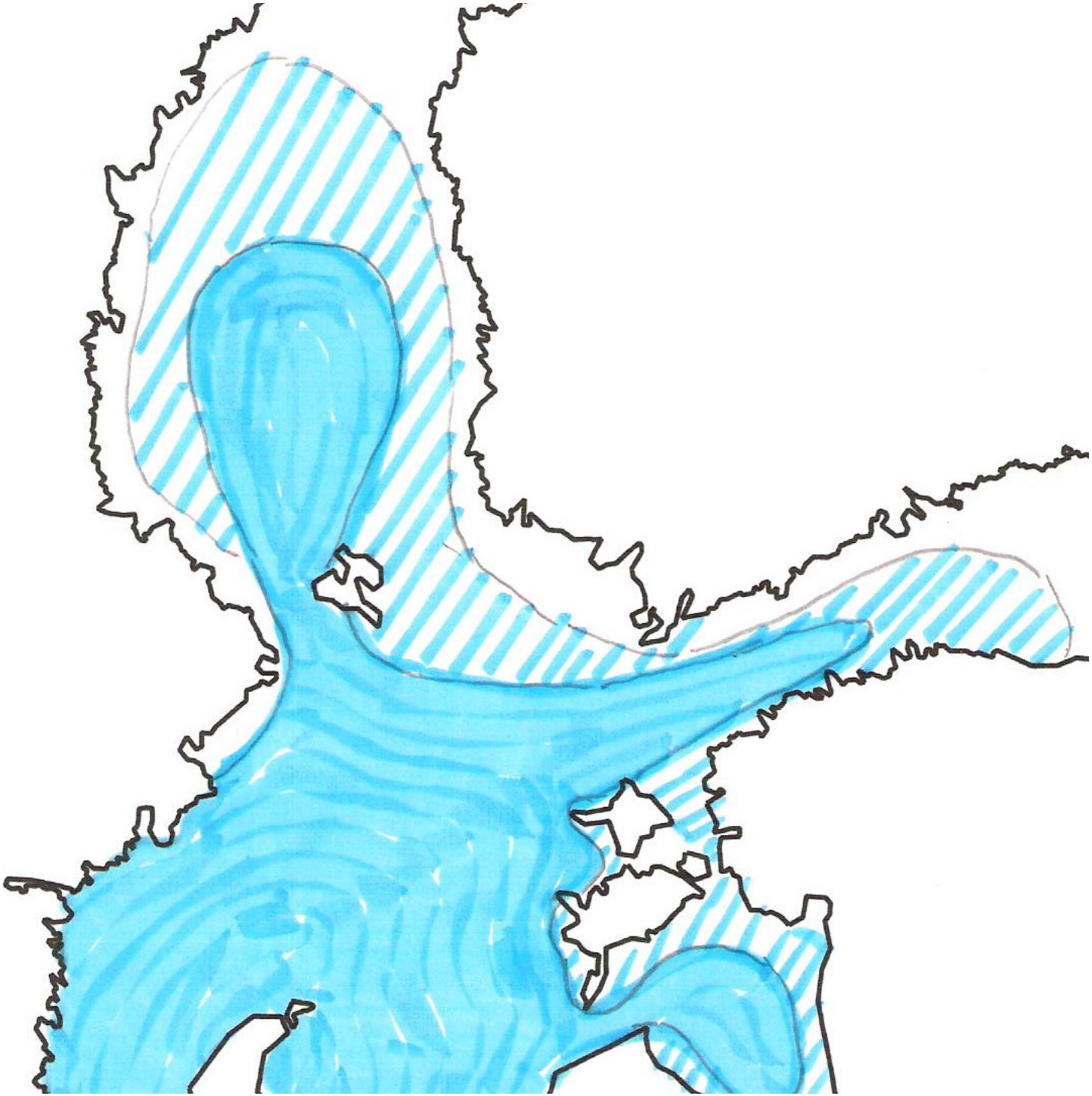
CRITERIA FOR CORRESPONDENCE

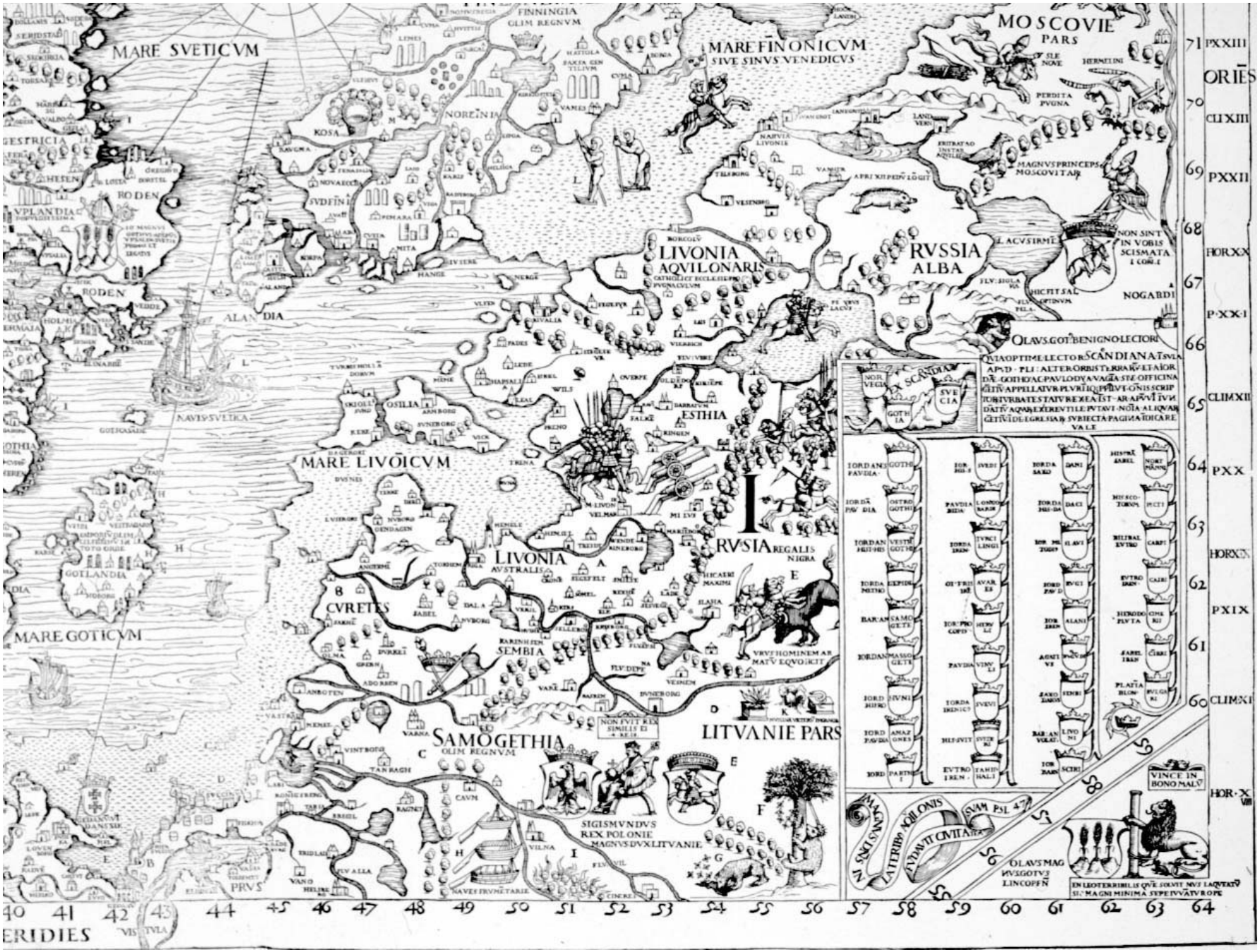
1. IF THE SPEED IS MORE THAN 60 KM/DAY THE LETTER WAS COMING FOR SURE BY SEA. SPECIAL CASES WITH CURRIERS OF HIGH OFFICIALS USUALLY HAD ALSO SPECIAL INFORMATION IN ADDITION

2. CORRESPONDENCE WITH THE SPEED OF 30-60 KM/DAY WAS MOST LIKELY COMING BY SEA UP TO THE SECOND HALF OF 17TH CENTURY. AFTER THAT TIME ADDITIONAL INFORMATION ABOUT LAND-ROADS IS NECESSARY

3. ONE CANNOT MAKE ANY DIFFERENCE BETWEEN CORRESPONDENCE COMING BY LAND OR SEA IF THE SPEED IS NOT MORE THAN 30 KM/DAY

ALL UNCLEAR CASES HAVE BEEN PUBLISHED BUT IN ITALICS





Olaus Magnus Carta Marina, Livonia osa, 1539

		Jääminekute korrelatsioon Läänemere piirkonnas											
Veekogu	1	2	3	4	5	6	7	8	9	10	11	12	
1.Daugava	#	0,72	0,78	0,55	0,83	0,74	0,82	0,59				0,54	
2.Neeva, Peterburg		#	0,76	0,58	0,34	0,28	0,8					0,27	
3.Pärnu j., Pärnu			#	0,65						0,66		0,45	
4.Emajõgi, Tartu				#								0,5	
5.Aura j., Turu					#	0,96	0,74					0,35	
6.Kokemäe j.						#						0,27	
7. Võsu j., Palmse							#					0,32	
8.Tallinna laht								#	0,43	0,52	0,76	**0,84**	
9.Viiburi laht									#	0,29	0,43	0,37	
10.Pärnu laht										#	0,49	0,53	
11.Paldiski laht											#	0,6	
12 Läänemere max jää pindala												#	

CORRELATION BETWEEN ICEBREAKS ON THA EASTERN COAST OF THE BALTIC SEA

CORRELATION BTW. MAX. AREA OF ICE:

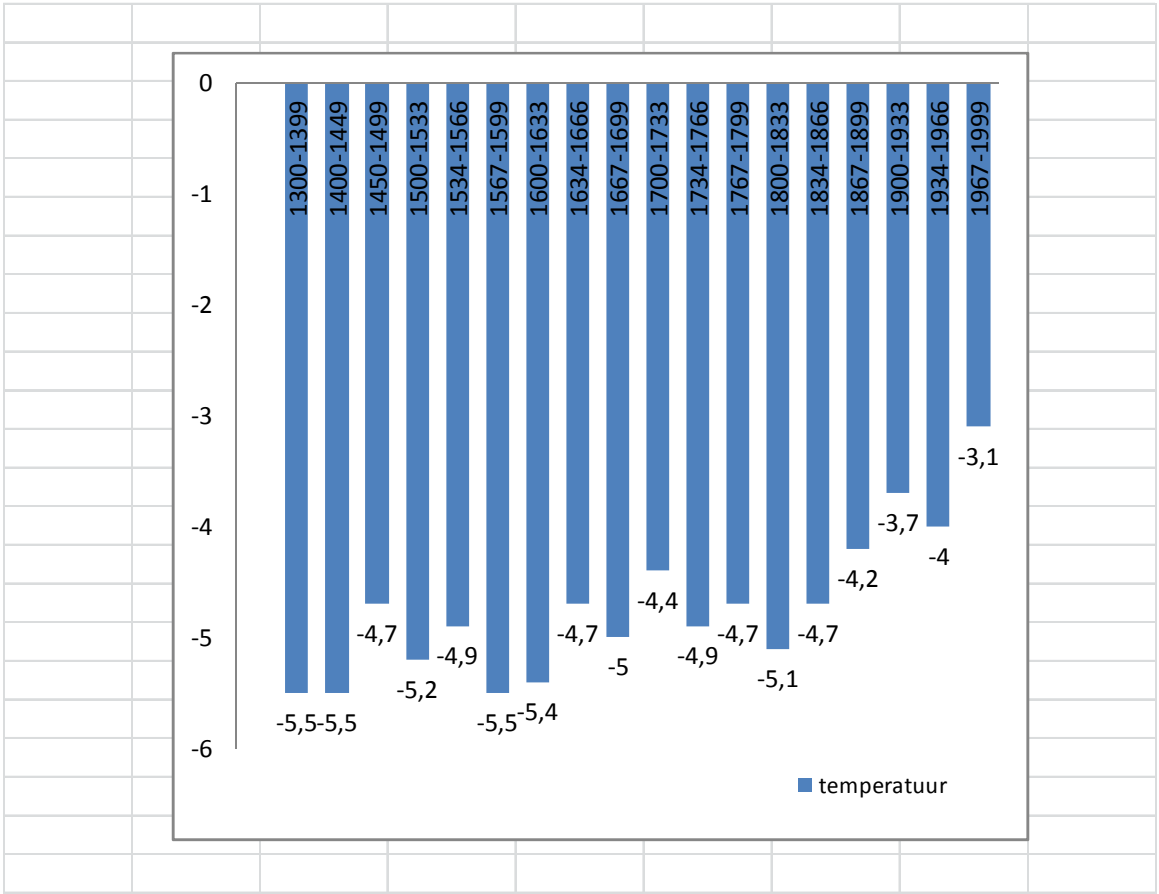
TALLINN 0.84 RIGA 0.54 PALDISKI 0.60 PÄRNU 0.45

VYBORG 0.53 (STOCKHOLM ?)

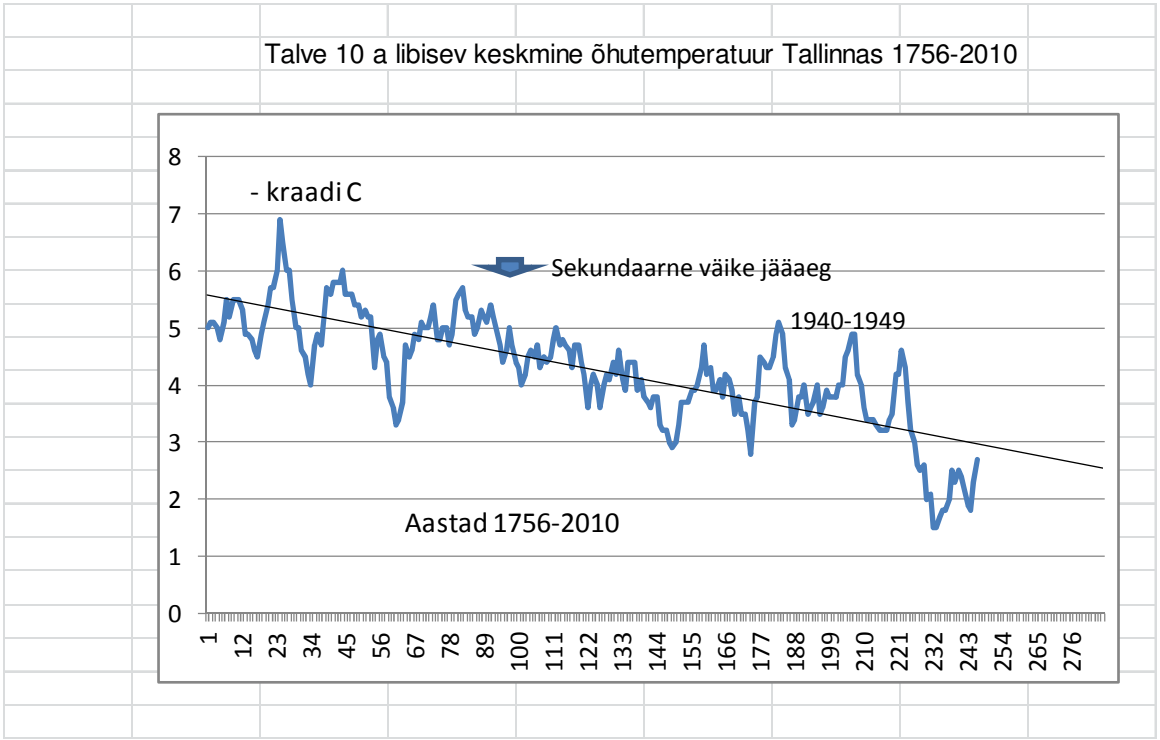
WINTER OR SPRING?

DAUGAVA WINTER (DEC – MARCH) **0.54** SPRING (MARCH-APR.) **0.69**

C.I.H. Speerschneider, 1915 Denmarks History Cold and very cold winters
R.Jurva 1939; M.Leppäranta ja A.Seinä, 1985 Maximum area of ice
S. Jevrejeva, 2001 Severity of winters (should be winters and springs)
A.Moberg, 2009 Stockholm winters temperature



MEAN AIR TEMPERATURE IN TALLINN BY PERIODS OF 33-34 YEARS


Talve 10 a libisev keskmine õhutemperatuur Tallinnas 1756-2010
- kraadi C
Sekundaarne väike jääaeg
1940-1949
Aastad 1756-2010
8
7
6
5
4
3
2
1
0
1
12
23
34
45
56
67
78
89
100
111
122
133
144
155
166
177
188
199
210
221
232
243
254
265
276

TALLINNA LAHE JÄÄMINEKU JA LÄÄNEMERE JÄÄ MAKSIMAALSE JÄÄTUMISE KORRELATSIOON ON 0,84

Külmumine 31.01±22 päeva
(9.01 – 22.02)
Jääminek 7.04±35 päeva
(3.03 – 12.05)