viruses

MDPI

Supplementary Material

Table S1. Seroprevalence of hepatitis E virus and statistical results in the tested reindeer (*Rangifer tarandus*) from Norway according to season age (adult, juvenile), sex (male, female), county of origin (Agder, Innlandet, Vestfold, Vestland, Viken) and season (spring, summer, autumn, winter).

	Age [1]21		**Sex [1]8**		**County [1]61**					**Season [1]2**			
	Adult	**Juvenile**	**Male**	**Female**	**Agder**	**Innlandet**	**Vestfold**	**Vestland**	**Viken**	**Spring**	**Summer**	**Autumn**	**Winter**
N	139	26	28	150	41	50	9	60	6	61	7	0.0	116
Prevalence %	25.0	12.0	25.0	24.0	20.0	24.0	33.0	20.0	17.0	20.0	29.0	0.0	25.0
95% CI	18.0–32.0	−16.0–25.0	7.9–42	17.0–31.0	6.8–32.0	12–36.0	−5.1–72.0	9.6–30.0	−26.0–60.0	9.4–30	−17.0–74.0	0.0	17.0–33.0
p-value	0.13		0.91				0.88			0.69		-	
Statistic value *K* or *U* *as corresponding	1561		2079				1173				0.74		

[1] Number of animals not- analyzed for this variable.

Table S2. Seroprevalence of hepatitis E virus and statistical results in the tested moose (*Alces alces*) from Norway according to season age (adult, subadult, calf), sex (male, female), county of origin (Agder, Innlandet, Nordland, Oslo, Rogland, Troms og Finnmark, Trondelag, Vestfold, Viken) and season (spring, summer, autumn, winter).

	Age [1]6			**Sex [1]7**		**County [1]4**								**Season [1]5**				
	Adult	**Juvenile**	**Calf**	**Male**	**Female**	**Agder**	**Innlandet**	**Nordland**	**Oslo**	**Rogaland**	**Troms**	**Trøndelag**	**Vestfold**	**Viken**	**Spring**	**Summer**	**Autumn**	**Winter**
N	100	26	32	56	101	4	34	21	1	1	11	33	12	47	7	1	61	90
Prevalence %	26.0	7.7	13.0	23.0	19.0	25.0	26.0	4.8	100	0.0	9.1	12.0	17.0	28.0	14.0	0.0	21.0	18.0
95% CI	17.0–35	−3.3–19	0.4–25	12.0–35	11.0–27	−55–100	11–42	−5.2–15	0.0–0.0	0.0–0.0	−0.11	0.4–24	−8.1–41	14–41	−21–49	0.0–0.0	11.0–32	9.7–26
p-value		0.06			0.5					0.1							0.9	
Statistic value *K* or *U* *as corresponding		5.7			2704					12.3							0.6	

[1] Number of animals not- analyzed for this variable.

Table S3. Seroprevalence of hepatitis E virus and statistical results in the tested muskoxen (*Ovibos moschatus*) from Norway according to season age (adult, subadult, calf), sex (male, female), and season (spring, summer, autumn, winter). All the animals were sampled in the Dovrefjell National Park.

	Age[1]0			**Sex[1]9**		**Season [1]43**			
	Adult	**Juvenile**	**Calf**	**Male**	**Female**	**Spring**	**Summer**	**Autumn**	**Winter**
N	65	13	24	47	46	39	10	1	9
Prevalence %	7.7	7.7	0.0	4.3	8.7	10.0	0.0	0.0	0.0
95% CI	1.0–14	−9.1–24	0.0–0.0	−1.7–10	0.2–17	0.3–20	0.0–0.0	0.0–0.0	0.0–0.0
p-value	0.38			0.39		0.54			
Statistic value *K* or *U* *as corresponding	1.94			1033		2.1			

[1] Number of animals not- analyzed for this variable.

Table S4. Seroprevalence of hepatitis E virus and statistical results in the tested red deer (*Cervus elaphus*) from Norway according to season age (adult, subadult, calf), sex (male, female), county of origin (Agder, Innlandet, Møre og Romsdal, Rogland, Trondelag, Vestfold, Vestland, Viken) and season (spring, summer, autumn, winter).

	Age[1]102			**Sex[1]47**		**County[1]0**								**Season[1]2**			
	Adult	**Juvenile**	**Calf**	**Male**	**Female**	**Agder**	**Innlandet**	**Møre og Romsdal**	**Rogaland**	**Trøndelag**	**Vestfold**	**Vestland**	**Viken**	**Spring**	**Summer**	**Autumn**	**Winter**
N	50	9	16	62	68	15	16	20	17	33	11	44	21	31	12	19	113
Prevalence %	6	0.0	0.0	4.8	2.9	0	13.0	10.0	5.9	6.1	0.0	0.0	0.0	0.0	8.3	5.3	4.4
95% CI	−0.8–13	0.0–0.0	0.0–0.0	−0.6–10	−1.2–7.1	0.0–0.0	−5.7–31	−4.4–24	−6.6–18	−2.5–15	0.0–0.0	0.0–0.0	0.0–0.0	0.0–0.0	−0.10	−5.8–6	0.6–8.3
p-value	0.46			0.58					0.24						0.57		
Statistic value *K* or *U* *as corresponding	1.5			2068					9.24						2.0		

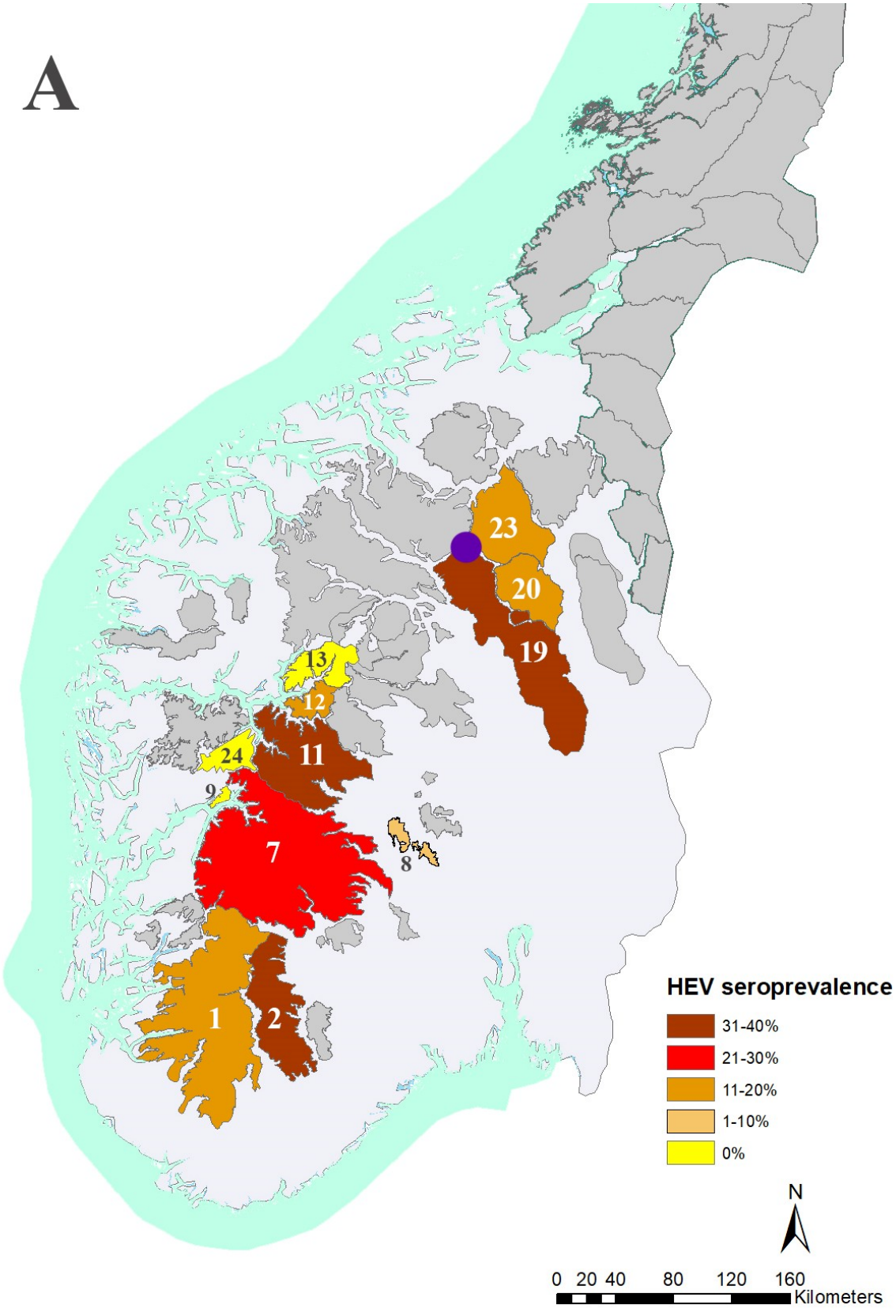
[1]Number of animals not- analyzed for this variable.

Table S5. Seroprevalence of hepatitis E virus and statistical results in the tested ungulate species from Norway according to season (spring, summer, autumn, winter) and county of origin (Agder, Innlandet, Møre og Romsdal, Nordland, Oslo, Rogland, Troms og Finnmark, Trondelag, Vestfold, Vestland, Viken).

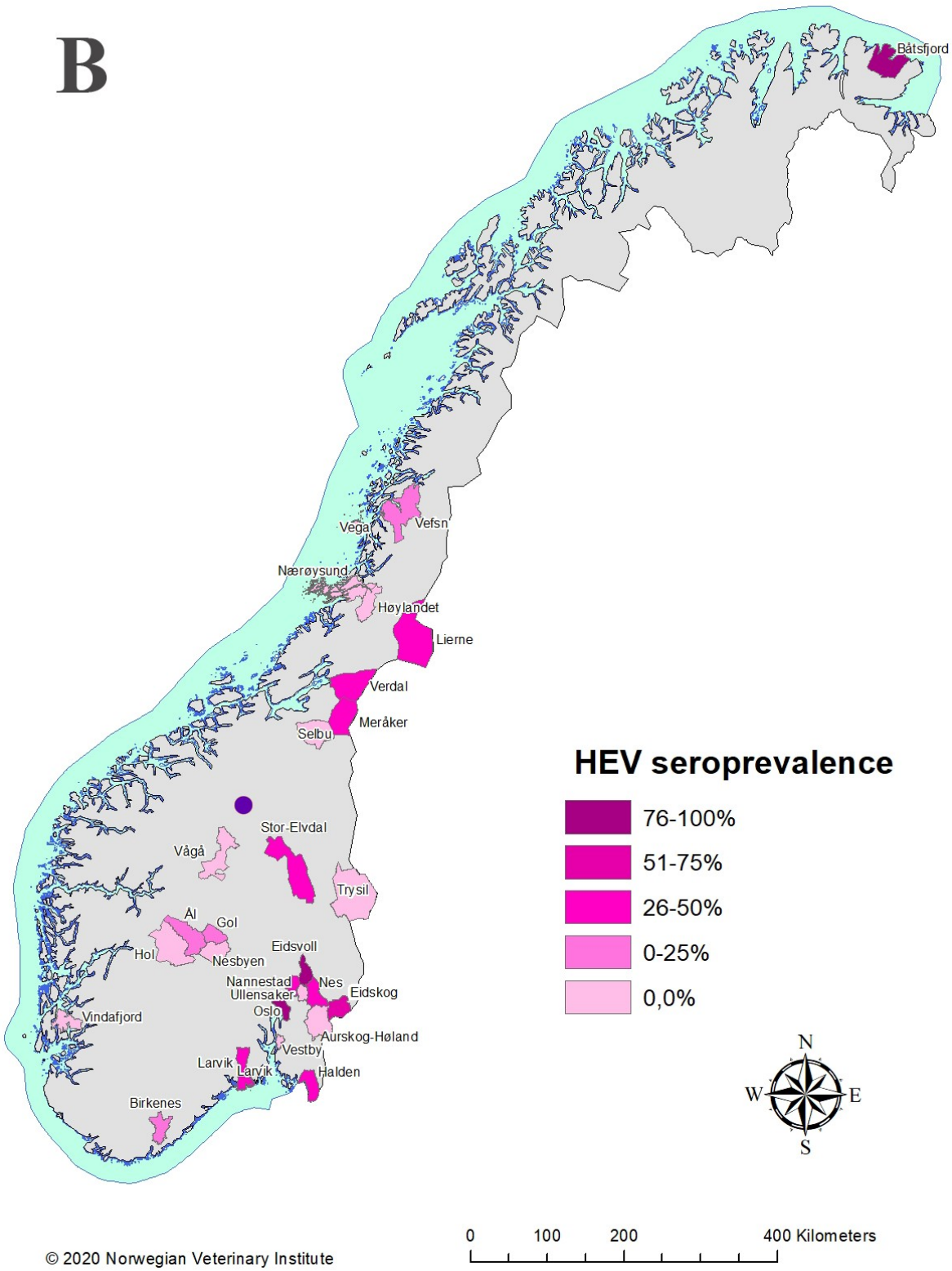
	Season				**County**										
	Spring	**Summer**	**Autumn**	**Winter**	**Agder**	**Innlandet**	**Møre og Romsdal**	**Nordland**	**Oslo**	**Rogland**	**Troms og Finnmark**	**Trondelag**	**Vestfold**	**Vestland**	**Viken**
N	137	53	145	331	69	158	29	37	1	18	11	116	41	104	94
Prevalence	12.0	5.7	9.7	15.0	13.0	17.0	6.9	2.7	100	5.6	9.1	6.0	12.0	12.0	15.0
95% CI	6.8–18	−0.7–12.0	4.8–15.0	11–19.0	4.9–21.2	11.0–23.0	−2.9–17.0	−2.8–8.2	0.0–0.0	−6.2–17.0	−11.0–29.0	1.6–10.0	1.7–23.0	5.3–18.0	7.6–22.0
p-value		0.13								0.15					
Statistic value *K*		5.7								13.4					

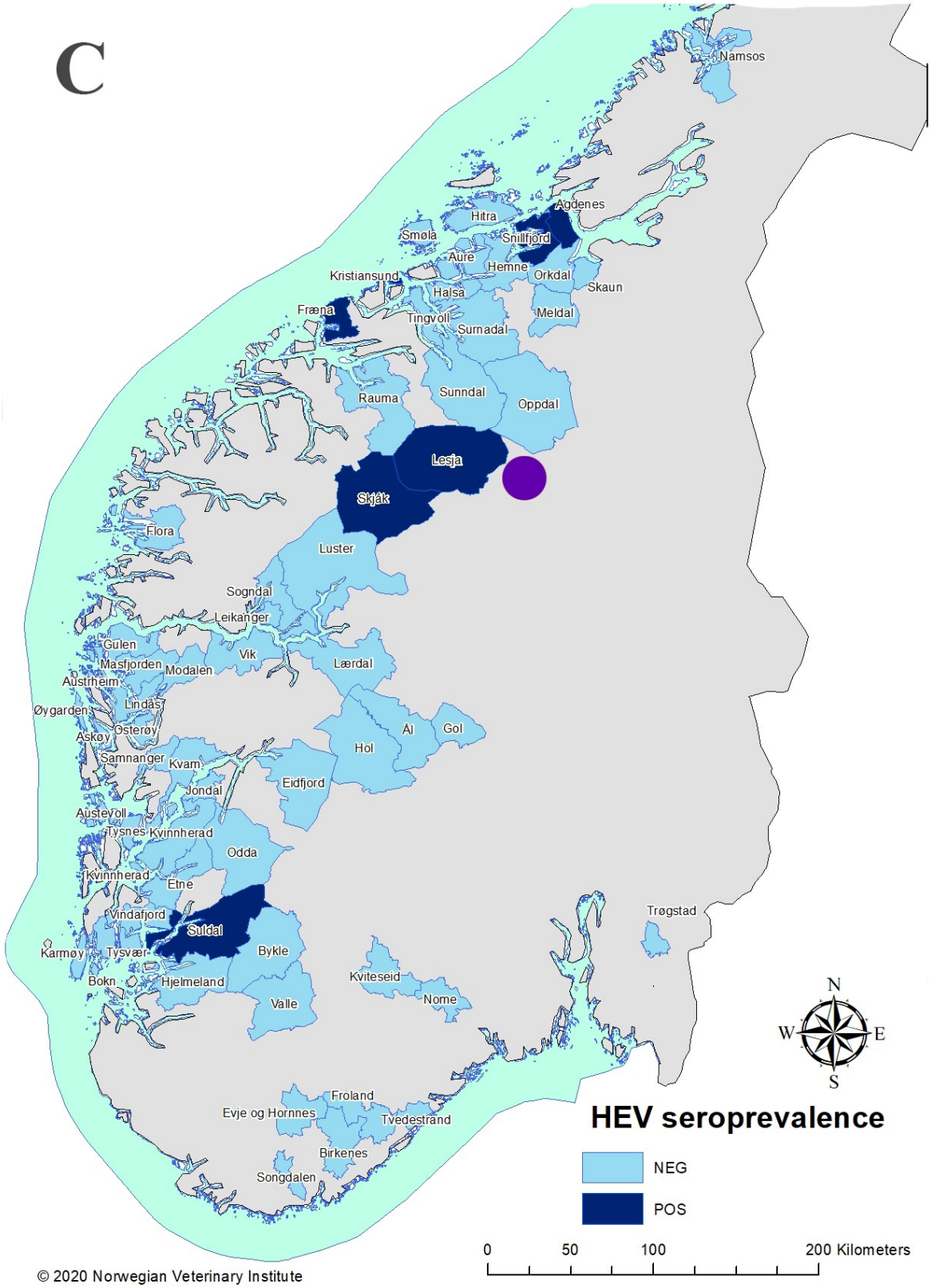
viruses

MDPI



© 2020 Norwegian Veterinary Institute


B
Båtsfjord
Vega
Vefsn
Nærøysund
Høylandet
Lierne
Verdal
Meråker
Selbu
Stor-Elvdal
Vågå
Trysil
Ål
Gol
Hol
Nesbyen
Eidsvoll
Nannestad
Ullensaker
Nes
Eidskog
Oslo
Vindafjord
Aurskog-Høland
Vestby
Larvik
Larvik
Halden
Birkenes
HEV seroprevalence
76-100%
51-75%
26-50%
0-25%
0,0%
N
W
E
S
0
100
200
400 Kilometers
© 2020 Norwegian Veterinary Institute


C
Namsos
Agdenes
Hitra
Snillfjord
Smøla
Aure
Hemne
Orkdal
Skaun
Kristiansund
Halsa
Fræna
Tingvoll
Meldal
Surnadal
Rauma
Sunndal
Oppdal
Lesja
Skjåk
Flora
Luster
Sogndal
Leikanger
Gulen
Vik
Lærdal
Masfjorden
Modalen
Austrheim
Øygarden
Lindås
Osterøy
Askøy
Hol
Ål
Gol
Samnanger
Kvam
Eidfjord
Jondal
Austevoll
Tysnes
Kvinnherad
Odda
Kvinnherad
Etne
Vindafjord
Suldal
Trøgstad
Karmøy
Tysvær
Bykle
Kviteseid
Bokn
Hjelmeland
Nome
Valle
Froland
Evje og Hornnes
Tvedestrand
Birkenes
Songdalen
N
W
E
S
HEV seroprevalence
NEG
POS
0
50
100
200 Kilometers
© 2020 Norwegian Veterinary Institute

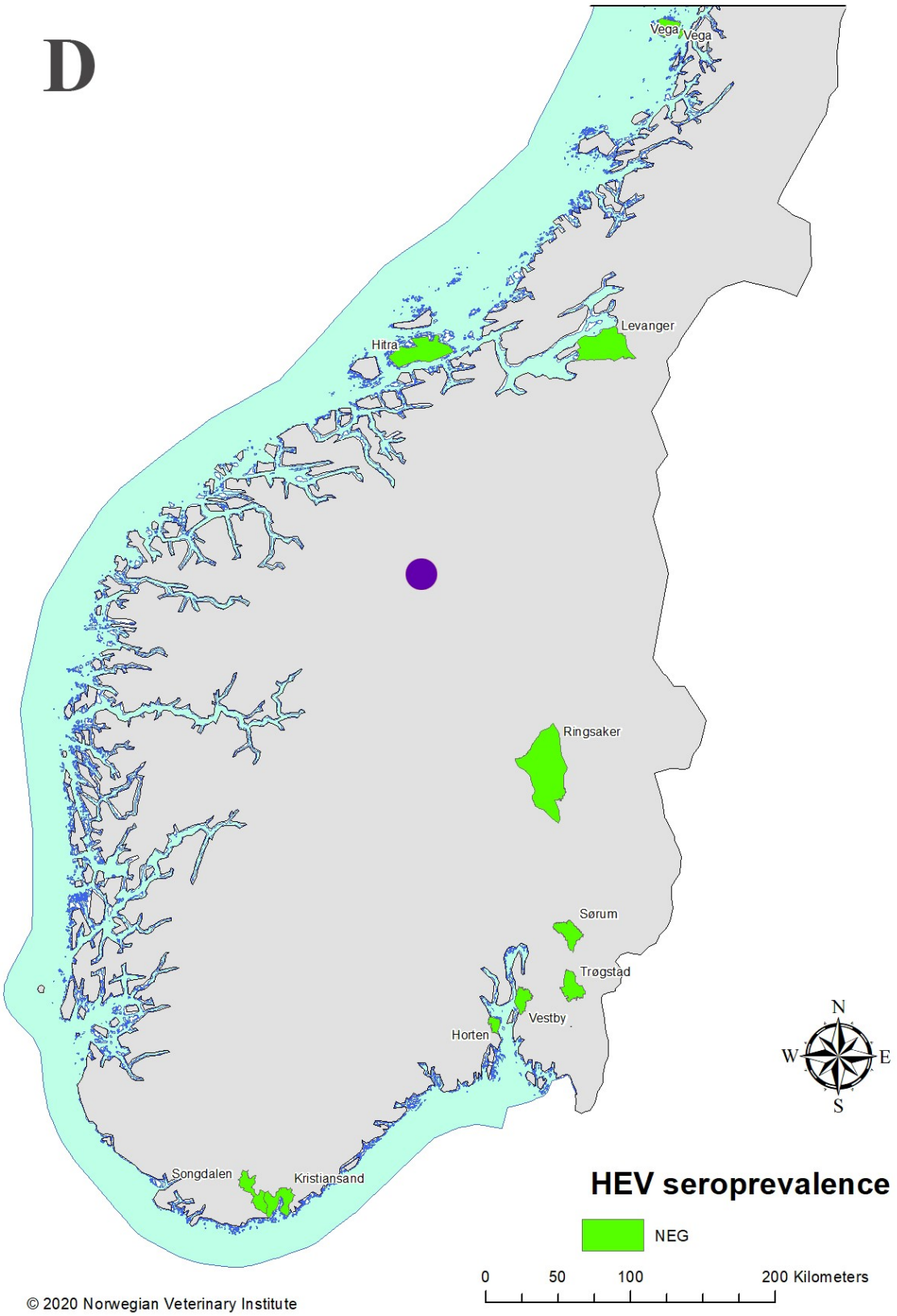


Figure S1. (**A**) Overview of the origin and prevalence results of samples tested for HEV in this study for Eurasian tundra reindeer (*Rangifer tarandus*). The numbers refer to the different wildlife reindeer management districts: 1-Setesdal Rykylke; 2-Setesdal Austhei; 7-Hardangervidda; 8-Norefjell; 9-Oksenhavøya; 11-Nordfjella; 12-Lærdal/Årdal; 13-Vest Jotunheimen; 19-Rondane; 20-Sølnkletten; 23-Knutshø; 24-Raudafjell. All muskoxen (*Ovibos moschatus*) originated from Dovrefjell National

Park, and this area is identified with a purple circle in every map. Note that for some cases the geographical origin was not recorded, therefore the total number of cases does not necessarily coincide with the number of cases represented. (**B**) Overview of the origin and prevalence results of samples tested for HEV in this study for moose (*Alces alces*). Geographic units colored in the map represent municipalities where animal samples were collected. All muskoxen (*Ovibos moschatus*) originated from Dovrefjell National Park, and this area is identified with a purple circle in every map. Note that for some cases the geographical origin was not recorded, therefore the total number of cases does not necessarily coincide with the number of cases represented. (**C**) Overview of the origin and prevalence results of samples tested for HEV in this study for red deer (*Cervus elaphus*). Geographic units colored in the map represent municipalities where animal samples were collected. All muskoxen (*Ovibos moschatus* originated from Dovrefjell National Park and this area is identified with a purple circle in every map. Note that for some cases the geographical origin was not recorded, therefore the total number of cases does not necessarily coincide with the number of cases represented. (**D**) Overview of the origin and prevalence results of samples tested for HEV in this study for European roe deer (*Capreolus capreolus*). Geographic units colored in the map represent municipalities where animal samples were collected. All muskoxen (*Ovibos moschatus*) originated from Dovrefjell National Park and this area is identified with a purple circle in every map. Note that for some cases the geographical origin was not recorded, therefore the total number of cases does not necessarily coincide with the number of cases represented.