Supplementary material for research article:

Occurrence of *Rickettsia* spp., *Hantaviridae*, *Bartonella* spp. and *Leptospira* spp. in European moles (*Talpa europaea*) from the Netherlands

Table S1: Primers used in this study

Pathogen	Target gene	Primer	Primer sequence (5'-3')	Reference	Tissue used for detection
Hantaviridae	L-segment	F1	ATGTAYGTBAGTGCWGATGC	Klempa et al. (2006)	Lung
		R1	AACCADTCWGTYCCRTCAT		
		F2	TGCWGATGCHACIAARTGGTC		
		R2	GCRTCRTCWGARTGRTGDGCAA		
Leptospira spp.	secY	F	GCGATTCAGTTTAATCCTGC	Ahmed et al. (2009)	Kidney
		R	GAGTTAGAGCTCAAATCTAAG		
Bartonella spp. (detection)	ssra	F	GCTATGGTAATAAATGGACAATGAAATAA	Diaz et al. (2012)	Spleen
		R	GCTTCTGTTGCCAGGTG		
		Probe	ACCCCGCTTAAACCTGCGACG		
Bartonella spp. (sequencing)	gltA	F	GGGGACCAGCTCATGGTGG	Norman et al. (1995)	Spleen
		R	ATTGCAAAAGAACAGTAAACA		
Spotted fever group *Rickettsia*	Rstenos	F	TCGCAAATGTTCACGGTACTTT	Stenos et al. (2005)	Spleen
		R	TCGTGCATTTCTTTCCATTGTG		
		Probe	TGCAATAGCAAGAACCGTAGGCTGGATG		
Anaplasma phagocytophilum	Msp2	F	ATGGAAGGTAGTGTTGGTTATGGTATT	Courtney et al. (2004)	Spleen
		R	TTGGTCTTGAAGCGCTCGTA		
		Probe	TGGTGCCAGGGTTGAGCTTGAGATTG		
Babesia spp.	18S	F	CAGCTTGACGGTAGGGTATTGG	Øines et al. (2012)	Spleen
		R	TCGAACCCTAATTCCCCGTTA		
		Probe	CGAGGCAGCAACGG		
Babesia microti	ITS	F	CTCACACAACGATGAAGGACGCA	Azagi et al. (2021)	Spleen
		R	AACAGAGGCAGTGTGTACAATACATTCAGA		
		Probe	GCA+GAATTTAG+CAAAT+CAACAGG		
Francisella tularensis	FopA	F	ATCTAGCAGGTCAAGCAACAGGT	Versage et al. (2003)	Spleen
		R	GTCAACACTTGCTTGAACATTTCTAGATA		
		Probe	CAAACTTAAGACCACCACCCACATCCCAA		
Borrelia burgdorferi	OspA	F	AATATTTATTGGGAATAGGTCTAA	Heylen et al. (2013)	Spleen
		R	CTTTGTCTTTTTCTTTRCTTACAAG		
		Probe	AAGCAAAATGTTAGCAGCCTTGA		
Borrelia miyamotoi	flagellin	F	AGAAGGTGCTCAAGCAG	Hovius et al. (2013)	Spleen
		R	TCGATCTTTGAAAGTGACATAT		
		Probe	AGCACAACAGGAGGGAGTTCAAGC		
Neoehrlichia mikurensis	groE	F	CCTTGAAAATATAGCAAGATCAGGTAG	Jahfari et al. (2012)	Spleen
		R	CCACCACGTAACTTATTTAGTACTAAAG		
		Probe	CCTCTACTAATTATTGCTGAAGATGTAGAAGGTGAAGC		
Spiroplasma spp.	rpoB	F	TGTTGGACCAAACGAAGTTG	Krawczyk et al. (2020)	Spleen
		R	CCAACAATTGGTGTTTGGGG		
		Probe	GCTAACCGTGCTTTAATGGG		

Table S2: Moles tested in this study

Number	Location	Sex	Weight (gram)	*Leptospira* spp.	*Bartonella* spp.	*Hantaviridae* *	Spotted fever group *Rickettsia*
18-2292	Urk	F	93	-	-	-	-
18-2293	Urk	M	127	-	-	+	-
18-2294	Urk	F	77	-	-	-	-
18-2295	Urk	M	121	-	-	-	-
18-2296	Urk	F	103	-	+	-	-
18-2297	Urk	F	106	*Leptospira interrogans*	-	-	-
18-2298	Urk	F	93	-	-	+	-
18-2299	Urk	M	130	-	-	-	-
18-2300	Urk	M	137	-	+	+	-
18-2301	Urk	M	154	-	-	-	-
18-2302	Urk	M	116	-	+	+	-
18-2303	Urk	F	91	-	-	+	-
18-2304	Urk	F	97	-	+	+	-
18-2305	Urk	F	90	-	-	-	-
18-2306	Urk	F	108	-	-	+	-
18-2307	Urk	F	93	-	-	+	-
18-2308	Urk	F	93	-	-		-
18-2309	Urk	F	100	-	-	-	-
18-2310	Urk	F	94	-	+	+	-
18-2311	Urk	M	147	-	-	+	-
18-2312	Urk	F	76	-	-	-	-
18-2313	Urk	F	84	-	-	-	-
18-2314	Urk	F	103	-	-	-	-
18-2315	Urk	F	96	-	-	-	-
18-2316	Urk	F	73	*Leptospira kirschneri*	-	-	-
18-2317	Urk	F	86	-	-	+	-
18-2318	Urk	F	99	-	-	+	-
18-2319	Urk	F	94	-	-	+	-
18-2320	Urk	F	79	-	-	+	-
18-2321	Urk	F	95	-	-	+	-
18-2322	Urk	F	84	-	-	+	-
18-2323	Urk	M	122	-	+	+	-
18-2324	Urk	F	104	-	+	+	-
18-2325	Urk	M	118	-	-	-	-
18-2326	Urk	M	135	-	-	-	-
18-2327	Urk	M	122	-	-	-	-
18-2328	Urk	M	138	-	-	-	-
18-2329	Urk	M	137	-	-	-	-
18-2330	Urk	M	139	-	-	+	-
18-2331	Urk	M	125	-	+	-	-
18-2332	Urk	F	89	-	+	-	-
18-2333	Urk	F	93	-	-	-	-
18-2334	Urk	M	118	-	+	+	-

18-2335	Urk	F	87	-	-	+	-
18-2336	Urk	F	94	-	+	+	-
18-2337	Urk	F	87	-	+	-	-
18-2338	Urk	F	84	-	-	+	-
18-2339	Urk	F	89	-	-	+	-
18-2340	Urk	F	85	-	+	+	-
18-2341	Urk	M	129	-	-	+	-
18-2342	Urk	M	116	-	-	+	-
18-2343	Urk	F	82	-	+	+	-
18-2344	Urk	F	90	-	-	-	-
18-2345	Urk	F	86	-	-	+	-
18-2346	Urk	F	86	-	+	+	-
18-2347	Urk	F	90	-	-	-	-
18-2348	Urk	M	150	-	-	-	-
18-2349	Urk	M	143	-	-	-	-
18-2350	Urk	M	138	-	-	-	-
18-2351	Urk	F	103	-	-	+	-
18-2372	Urk	F	92	-	-	+	-
18-2373	Urk	F	84	-	-	-	-
18-2374	Urk	F	98	-	-	-	-
18-2375	Urk	F	98	-	+	-	-
18-2376	Urk	M	106	-	-	+	-
18-2377	Urk	F	91	-	-	+	-
18-2378	Urk	F	89	-	-	-	-
18-2379	Urk	F	98	-	-	-	-
18-2380	Urk	M	137	-	-	-	-
18-2381	Urk	F	87	-	-	-	-
18-2382	Urk	M	107	-	-	-	-
18-2383	Urk	F	96	-	-	+	-
18-2384	Urk	F	108	-	-	-	-
18-2385	Urk	M	129	-	-	-	-
18-2386	Urk	M	146	-	-	+	-
18-2387	Urk	M	140	-	-	+	-
18-2388	Urk	M	134	-	+	+	-
18-2389	Urk	M	160	-	-	-	-
18-2390	Urk	F	91	-	+	-	-
18-2421	Urk	F	89	-	-	-	-
18-2422	Urk	F	95	-	-	-	-
18-2423	Urk	F	87	-	+	-	-
18-2424	Urk	F	81	-	-	+	-
18-2425	Urk	F	83	-	-	-	-
18-2426	Urk	F	98	-	-	-	-
18-2427	Urk	F	95	-	-	-	-
18-2428	Urk	F	93	-	-	-	-
18-2429	Urk	F	81	-	-	+	-
18-2430	Urk	M	144	-	-	+	-
18-2431	Urk	F	99	-	-	-	-
18-2432	Urk	F	93	-	+	-	-
18-2433	Urk	M	113	-	-	-	-
18-2434	Urk	M	132	-	+	+	-

18-2435	Urk	F	91	-	-	+	-
18-2436	Urk	F	99	-	+	+	-
18-2437	Urk	M	140	-	+	-	-
18-2438	Urk	M	126	-	-	-	-
18-2439	Urk	M	148	-	+	-	-
18-2440	Urk	M	144	-	-	+	-
18-2441	Urk	F	104	-	+	-	-
18-2442	Urk	F	89	-	-	-	-
18-2443	Urk	F	95	-	-	-	-
18-2444	Urk	M	134	-	+	-	-
18-2445	Urk	M	159	-	-	-	-
18-2446	Urk	M	137	-	-	+	-
18-2496	Urk	F	95	-	+	-	-
18-2497	Urk	F	105	-	+	+	-
18-2498	Urk	F	101	-	-	+	-
18-2499	Urk	M	119	-	+	+	-
18-2500	Urk	M	137	*Leptospira interrogans*	+	+	-
18-2501	Urk	F	103	-	+	+	-
18-2502	Urk	M	149	-	-	+	-
18-2503	Urk	M	133	-	+	+	-
18-2504	Urk	M	131	-	+	+	-
18-2505	Urk	F	97	-	+	+	-
18-2506	Urk	F	91	-	-	-	-
18-2507	Urk	M	167	-	+	-	-
18-2508	Urk	F	95	-	+	+	-
18-2509	Urk	F	89	-	+	+	-
18-2510	Urk	F	81	-	+	+	-
18-2511	Urk	F	95	-	-	-	-
18-2512	Urk	F	95	-	+	+	-
18-2513	Urk	M	139	-	+	-	-
18-2514	Urk	F	91	-	+	+	-
18-2515	Urk	F	87	-	+	-	-
19-2693	Bergen op Zoom	M	120	-	+	+	-
19-2694	Bergen op Zoom	M	130	-	+	+	-
19-2695	Bergen op Zoom	M	88	-	-	-	-
19-2696	Bergen op Zoom	F	84	-	+	+	-
19-2697	Bergen op Zoom	M	n.d	-	+	+	-
19-2698	Bergen op Zoom	M	n.d	-	-	-	-
19-2699	Bergen op Zoom	F	102	-	+	-	-
19-2700	Bergen op Zoom	F	80	-	+	-	-
19-2701	Bergen op Zoom	F	74	-	+	-	-
19-2702	Bergen op Zoom	M	88	-	+	-	-
19-2703	Bergen op Zoom	M	114	-	+	+	-
19-2704	Bergen op Zoom	F	98	-	+	+	-
19-2705	Bergen op Zoom	F	86	-	-	+	-
19-2706	Bergen op Zoom	F	86	-	-	-	-
19-2707	Bergen op Zoom	M	122	-	+	-	-
19-2708	Bergen op Zoom	M	12	-	+	-	-
19-2709	Bergen op Zoom	F	74	-	+	+	-

19-2710	Bergen op Zoom	M	110	-	+	-	-
19-2711	Bergen op Zoom	F	78	-	+	-	-
19-2712	Bergen op Zoom	M	122	-	+	+	-
19-2713	Lage Zwaluwe	F	86	-	-	+	-
19-2714	Lage Zwaluwe	F	86	-	-	-	-
19-2715	Lage Zwaluwe	M	110	-	-	-	-
19-2716	Lage Zwaluwe	F	70	-	-	-	-
19-2717	Lage Zwaluwe	M	122	-	-	-	-
19-2718	Lage Zwaluwe	M	128	-	-	-	-
19-2719	Lage Zwaluwe	M	130	-	+	-	-
19-2720	Lage Zwaluwe	M	104	-	-	-	-
19-2721	Lage Zwaluwe	M	82	-	-	+	-
19-2722	Lage Zwaluwe	F	78	-	-	+	-
19-2723	Lage Zwaluwe	M	128	-	-	-	-
19-2724	Lage Zwaluwe	M	88	-	-	+	-
19-2725	Lage Zwaluwe	F	92	-	-	-	-
19-2726	Lage Zwaluwe	F	88	-	-	+	-
19-2727	Lage Zwaluwe	F	102	-	+	-	-
19-2728	Lage Zwaluwe	M	122	-	-	+	-
19-2729	Lage Zwaluwe	M	102	-	-	+	-
19-2730	Lage Zwaluwe	M	106	-	-	-	-
19-2731	Lage Zwaluwe	M	126	-	+	+	+
19-2732	Lage Zwaluwe	n.d.	104	-	-	+	-
19-2733	Schimmert	M	98	-	+	-	-
19-2734	Schimmert	M	114	-	-	+	-
19-2735	Schimmert	M	88	-	+	-	-
19-2736	Gennep	F	80	-	+	+	-
19-2737	Gennep	M	102	-	-	-	-
19-2738	Gennep	F	80	-	+	+	-
19-2739	Gennep	M	110	-	+	+	-
19-2740	Gennep	M	110	-	-	-	-
19-2741	Gennep	F	88	-	-	+	-
19-2742	Gennep	F	70	-	+	-	-
19-2743	Gennep	M	110	-	-	-	-
19-2744	Gennep	M	126	-	-	-	-
19-2745	Gennep	F	80	-	+	**+**	-
19-2746	Gennep	F	72	-	-	-	-
19-2747	Gennep	M	106	-	+	+	-

* All detected hantaviruses concern NVAV, only the one animal in bold (19-2745) indicates the animal in which BRGV was detected.

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