

**Supplementary data 1.** MALDI-TOF MS identification of louse species excluded from the final analyses.

Host	Species	Percentage of excluded specimens	LSVs obtained	Percentage of correct identification
Mammal lice	<i>Haematopin us</i>	2 (10%)	[1.687- 1.878]	1/2 (50%)
	<i>eurysternus</i>		-1.782	
	<i>Solenopotes</i>	9 (13.23%)	[1.304-	7/9
	<i>Capillatus</i>		1.698]	(77.77%)
			-1.561	
	<i>Linognathus vituli</i>	10 (28.57)	[1.198- 1.781]	9/10 (90%)
			1.596	
	<i>Linognathus africanus</i>	4 (19.05%)	[1.242- 1.613]	3/4 (75%)
			-1.432	
	<i>Bovicola caprae</i>	12 (26.66)	[1.269- 2.031]	8/12 (66.66%)

			1.573	%)
	<i>Bovicola</i>	11 (27.5%)	[1.321-	3/11(2
	<i>bovis</i>		2.729]	7.27%)
			1.811	
	<i>Bovicola ovis</i>	39 (40.62%)	[1.188-	21/39
			2.658]	(53.84
			1.403	%)
Poultry lice	<i>Goniocotes</i>	/	/	/
	<i>gallinae</i>			
	<i>Goniodes</i>	/	/	/
	<i>gigas</i>			
	<i>Menopon</i>	3 (18.75%)	[1.605-	3/3
	<i>gallinae</i>		1.803]	(100%)
			-1.691	
	<i>Menacanthu</i>	4 (40%)	[1.075-	0%
	<i>s stramineus</i>		1.439]	
			1.276	
	<i>Chelopistes</i>	3/18 (37.5%)	[1.536-	0%
	<i>meleagridis</i>		1.627]	
			-1.594	
	<i>Lipeurus</i>	6 (75%)	/	/
	<i>caponis</i>			
Human lice	13	103 (25.25%)	1.572	55/90
			(61.11	

%)