



Figure S1A. Representative sampling points in Buea (Fako Division) from a total of five in this Health District. For GPS co-ordinates for each numbered sampling point, see Table S2. All water bodies were slow flowing or stagnant, persisted throughout the year, and were located in periurban or agricultural areas. However, after heavy rainfall, some water bodies were temporarily fast-flowing (see B01).



Figure S1B. The single sampling point in Ekondo-Titi (Ndian Division). For GPS co-ordinates, see Table S2. This site consisted of ponds fed by slow-flowing streams in an oil palm plantation.



Figure S1C. Representative sampling points in Kumba (Meme Division) from a total of five in this Health District. For GPS co-ordinates for each numbered sampling point, see Table S2. Note that Barombi Mbo (K02), a volcanic lake with an area of 5 km² and an average depth of 69 m, was the sole large water body included in this study, although only the shallows accessible by wading were sampled. The other water bodies illustrated here were slow-flowing rivers or streams in periurban locations and persisted throughout the year. They were used by community members for a variety of purposes including fishing and washing of cars.



Figure S1D. The sampling points in Limbe (Fako Division). For GPS co-ordinates for each numbered sampling point, see Table S2. One of the sampling points (L01) was stagnant, shallow and used mainly for car washing and the other was a river (L02) used for washing of clothes, bathing and fishing. The latter site became fast flowing after heavy rain.



Mb07



Mb03



Mb02



Mb04

Figure S1E. Representative sampling points in Mbonge (Ndian Division) from a total of seven in this Health District.. For GPS co-ordinates for each numbered sampling point, see Table S2. In each locality, the population used the water for drinking, washing of clothes, cooking and bathing. All water bodies were stagnant or very slow flowing.



Figure S1F. Representative sampling points in Muyuka (Fako Division) from a total of five in this Health District. For GPS co-ordinates for each numbered sampling point, see Table S2. All water bodies were streams or rivers with slow or moderate flow and were used by the community for varied purposes including drinking, bathing and fishing.

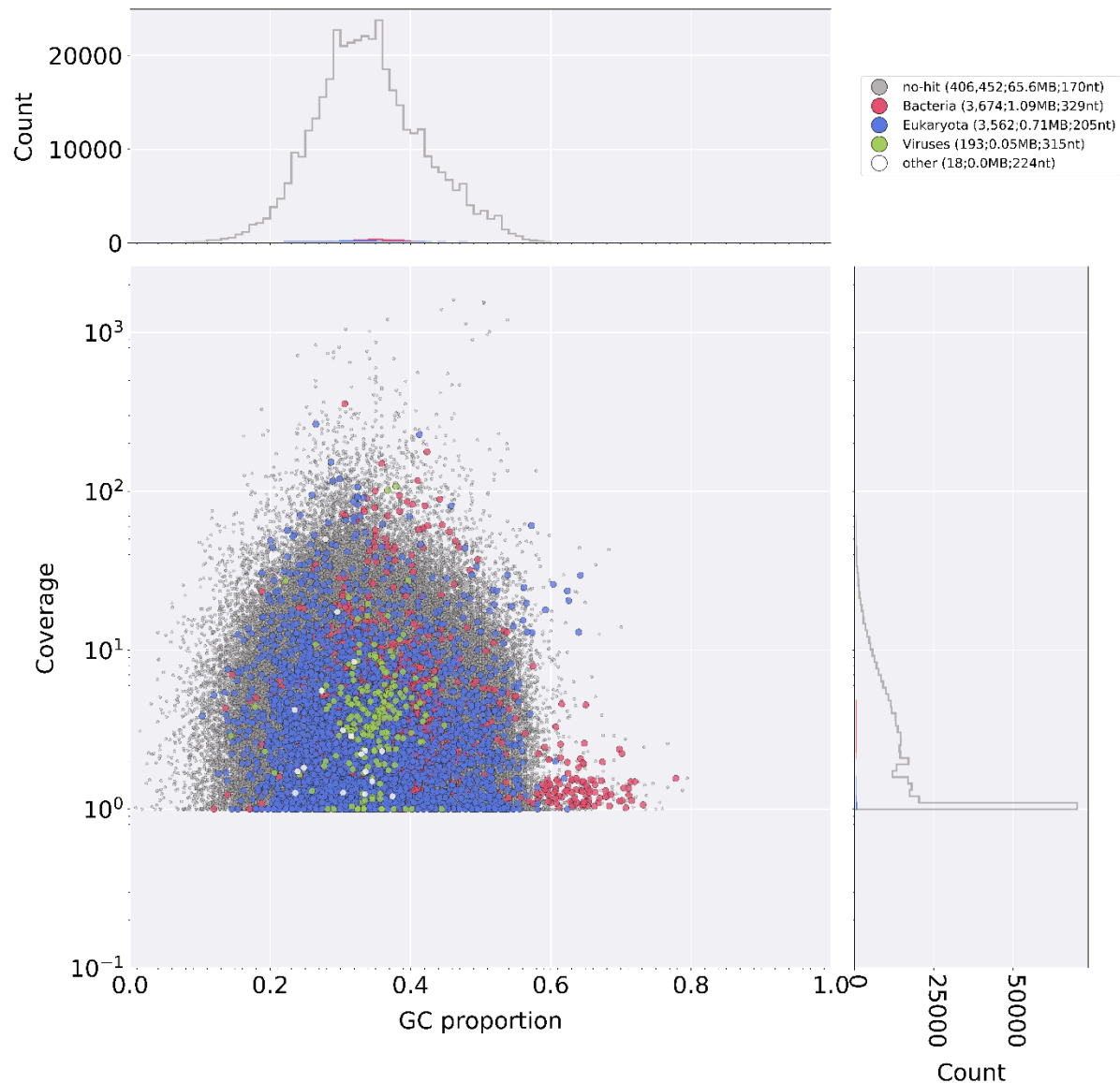


Figure S2. Representative blob-plot from sample 15 (*Rhagovelia* sp. 2 from Mbonge). The figure shows the proportion of GC bases and Velvet node coverage for assembled contigs. Note bacterial contigs (in red) at relatively high coverage.

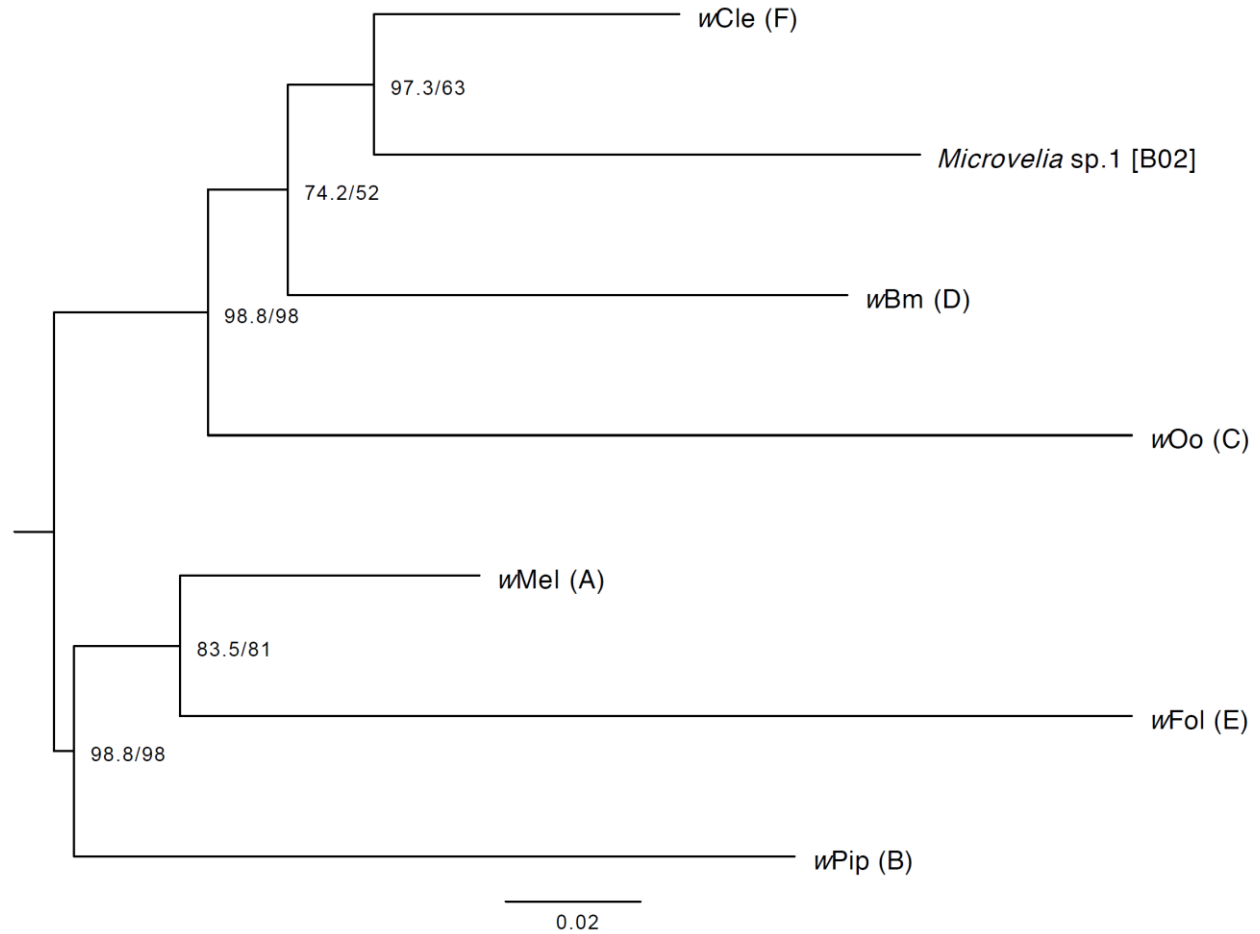


Figure S3. Concatenated tree based on 26 protein-coding *Wolbachia* orthologs for sample 5. Reference sequences are taken from the following *Wolbachia* strains: *wMel* (from *Drosophila melanogaster*), *wPip* (from *Culex pipiens*), *wOo* (from *Onchocerca ochengi*), *wBm* (from *Brugia malayi*), *wFol* (from *Folsomia candida*) and *wCle* (from *Cimex lectularius*).

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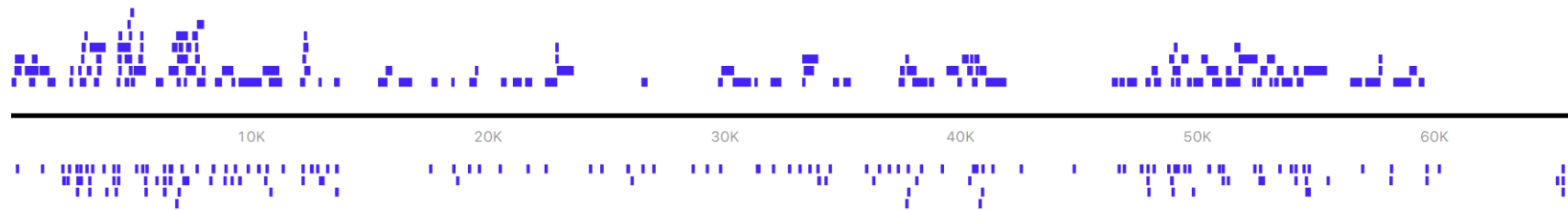


Figure S4. Contigs from sample 15 (*Rhagovelia* sp. 2 from Mbonge) mapping to a reference WO phage genome. This phage genome is from *Wolbachia* strain *wVitA*, a symbiont of the parasitoid wasp *Nasonia vitripennis* (scale in bp).

Table S1. The distribution of human-biting bugs captured in the Health Districts.

Health District		Total bugs captured (all families)	Human-biting aquatic bug families				Human-biting bugs only (%)
			Notonectidae	Naucoridae	Belostomatidae	Nepidae	
Hypoendemic	Limbe	73	0	20	0	0	20 (27.4)
	Buea	182	9	3	0	0	12 (6.6)
	Muyuka	216	0	14	1	2	17 (7.9)
	Kumba	240	2	11	18	0	31 (12.9)
Mesoendemic	Mbonge	335	16	4	12	4	36 (10.7)
	Ekondo-Titi	56	27	0	5	1	33 (58.9)
	Total	1,102	54	52	36	7	149 (13.5)

Table S2. Distribution of aquatic Hemiptera in the Southwest Region of Cameroon.

[illegible]