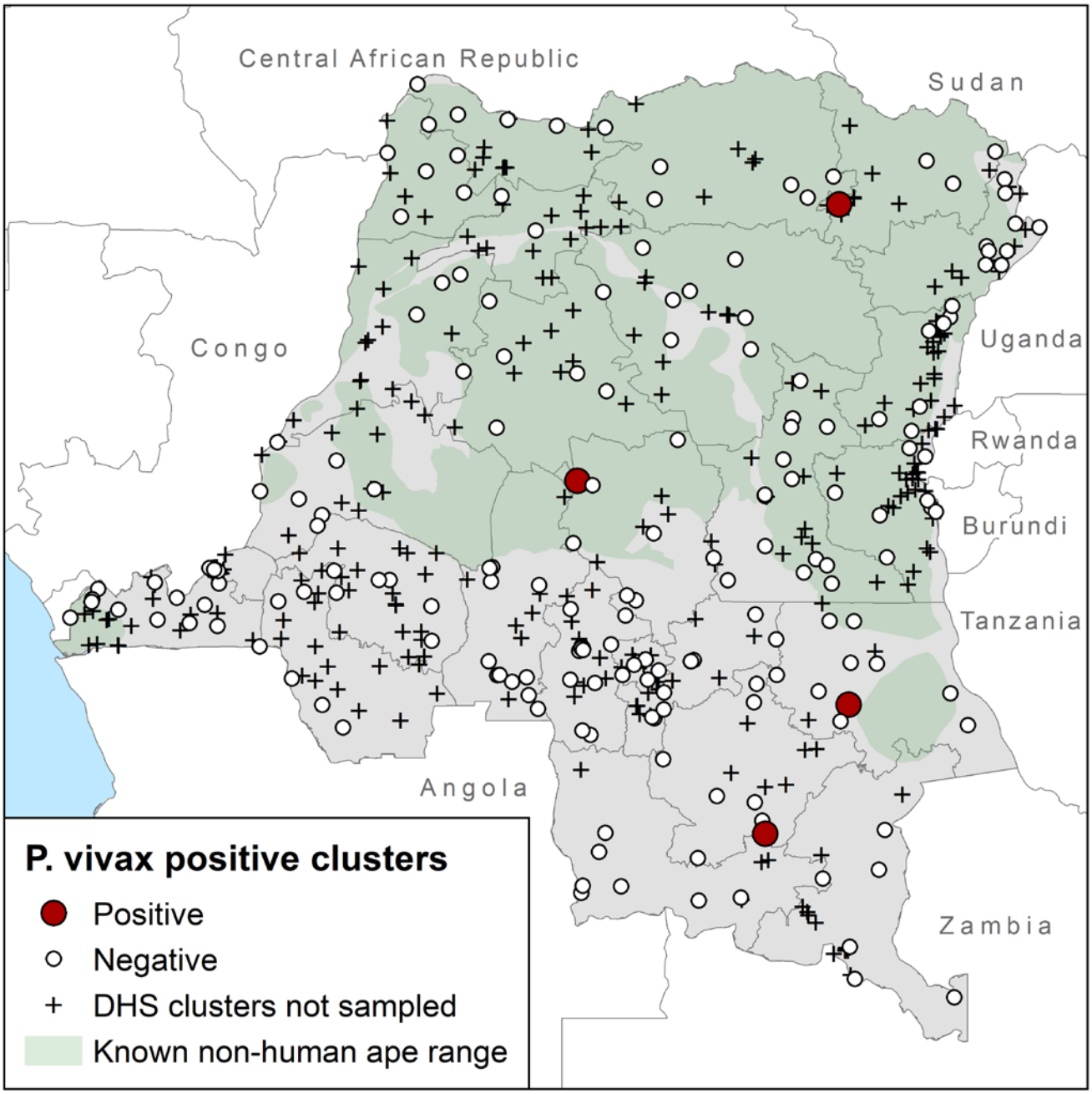
The following are supplemental materials and will be published online only



Supplemental Figure 1: Map of the Democratic Republic of the Congo with known non-human ape range (green), clusters not selected in the screen (black), clusters that screened positive for *P. vivax* (red), and clusters that screened negative for *P. vivax* (white). Shapefiles for the Democratic Republic of the Congo were downloaded from the Database of Global Administrative Areas (http://www.gadm.org/) and plotted with ArcGIS (version 10.4.1). The non-human ape boundaries were defined by data from the International Union for Conservation of Nature (http://www.iucnredlist.org/).

Ref.	Primer	Sequence	Recipe	Thermocycler Conditions
Singh *et al.* 1999 [29]	rPLU 1	5` – TCAAAGATTAAGCCATGCAAGTGA	**Round 1** 1. 12.5 µL of HotStarTaq Master Mix (Qiagen©, Venlo, Netherlands) 2. 400 nM of forward and reverse primer 3. 5 µL of template DNA	1. 95°C for 15 minutes 2. 35 cycles of 94°C for 1 minute, 50°C for 1 minute, and 72°C for 1 minute 3. Final extension of 72°C for 10 minutes
	rPLU 5	5` – CCTGTTGTTGCCTTAAACTCC		
	rViv 1	5` – CGCTTCTAGCTTAATCCACATAACTGATAC	**Round 2** 1. 12.5 µL of HotStarTaq Master Mix (Qiagen©, Venlo, Netherlands) 2. 400 nM of forward and reverse primer 3. 1 µL of round-1 PCR product	1. 95°C for 15 min 2. 35 cycles of 94°C for 1 minute, 62°C for 1 minute, and 72°C for 1 minute 3. Final extension of 72°C for 10 minutes.
	rViv 2	5` – ACTTCCAAGCCGAAGCAAAGAAAGTCCTTA		
Veron *et al.* 2009 [30]	Pv-1	5` – CGCTTCTAGCTTAATCCACATTAACTG	1. 12.5 µL of FastStart Universal Probe (Roche©, Indianapolis, IN) 2. 1000 nM of forward and reverse primer 3. 200 nM Pv-probe (VIC-MGB) 4. 2 µL of template DNA	1. 95°C for 10 min 2. 40 cycles of 95°C for 15 sec 3. 60°C for 1 minute
	Pv-2	5` – AATTTACTCAAAGTAACAAGGACTTCCAAG		
	Pv-probe (VIC-MGB)	5` – CGCATTTTGCTATTATGT		
Ménard *et al.* 2010 [6]	Duffy Outer Forward *	5` – GTGGGGTAAGGCTTCCTGAT	**Round 1** 1. 400 nM of each primer 2. 0.25 µL of FastStart High Fidelity Taq (Enzyme Blend; Roche©,	1. 95°C for 2 min 2. 40 cycles of 95°C for 30 seconds, 64°C for 30 seconds, and 72°C for 5 minutes
	Duffy Outer Reverse	5` – CAGAGCTGCGAGTGCTACCT		

			Indianapolis, IN) 3. 2.5 µL of 10x FastStart High Fidelity reaction buffer with 18 mM MgCl2 4. 250 µM of dNTPs 5. 3uL of template DNA	3. Final extension of 72°C for 5 minutes
	Duffy Outer Forward *	5` – GTGGGGTAAG GCTTCCTGAT	**Round 2** 1. 360 nM of each primer 2. 0.25 µL of FastStart High Fidelity Taq (Enzyme Blend; Roche, Indianapolis, IN) 3. 2.5 µL of 10x FastStart High Fidelity Reaction Buffer, 1 mM of MgCl2 4. 250 µM of dNTPs 5. 3 µL of first-round PCR product as the template	1. 95°C for 2 min 2. 40 cycles of 95°C for 30 seconds, 61°C for 30 seconds, and 72°C for 5 minutes 3. Final extension of 72°C for 5 minutes
	Duffy GATA1 Reverse	5` – CAAACAGCAG GGGAAATGAG		

Supplemental Table 1: The adapted protocols used for diagnostic PCR, confirmatory qPCR, and Duffy-genotyping with associated PCR recipes and thermocycler conditions. *Hemi-nested PCR protocol (same primer).

Sample	Sequence
D9U3K	CTTTGTGCGCATTTTGCTATTATGTGTTCTTTTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTCGGCTTGGAAGTAA
I4G3V	TTTGTGCGCATTTTGCTATTATGTGTTCTTTTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTCGGCTTGGA
N4M7L	TTTGTGCGCATTTTGCTATTATGTGTTCTTTTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTCGGCTTGGAA
Q8J6O	TTGTGCGCATTTTGCTATTATGTGTTCTTTTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTCGGCTTGGAA
O6Y4X	TGCTATTATGTGTTCTTTTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTC
M2B5U	ATTATGTGTTCTTTTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTCGG
P8A6E	TTATGTGTTCTTTTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTCGGCTTGGA
X3M5S	TTATGTGTTCTTTTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTCGGCTTGGAA
B5A7N	TTATGTGTTCTTTTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTCGGCTTGGAAGTA
Z6W9M	TTAATTAAAATGATTCTTTTTAAGGACTTTCTTTGCTTCGGCTTGGA
J6V8T	AATTAAAATGATTCCTTTTTAAGGACTT
T6B8J	TTTTAAGGACTTTCTTTGCTTCGGCTTGGA

Supplemental Table 2: Sanger sequences for the *P. vivax* 18s rRNA gene by sample. The ends of the sequences were trimmed for low quality bases using the default settings in Geneious® 10.1.3 (Biomatters Limited, Auckland, New Zealand).