

Supporting Information

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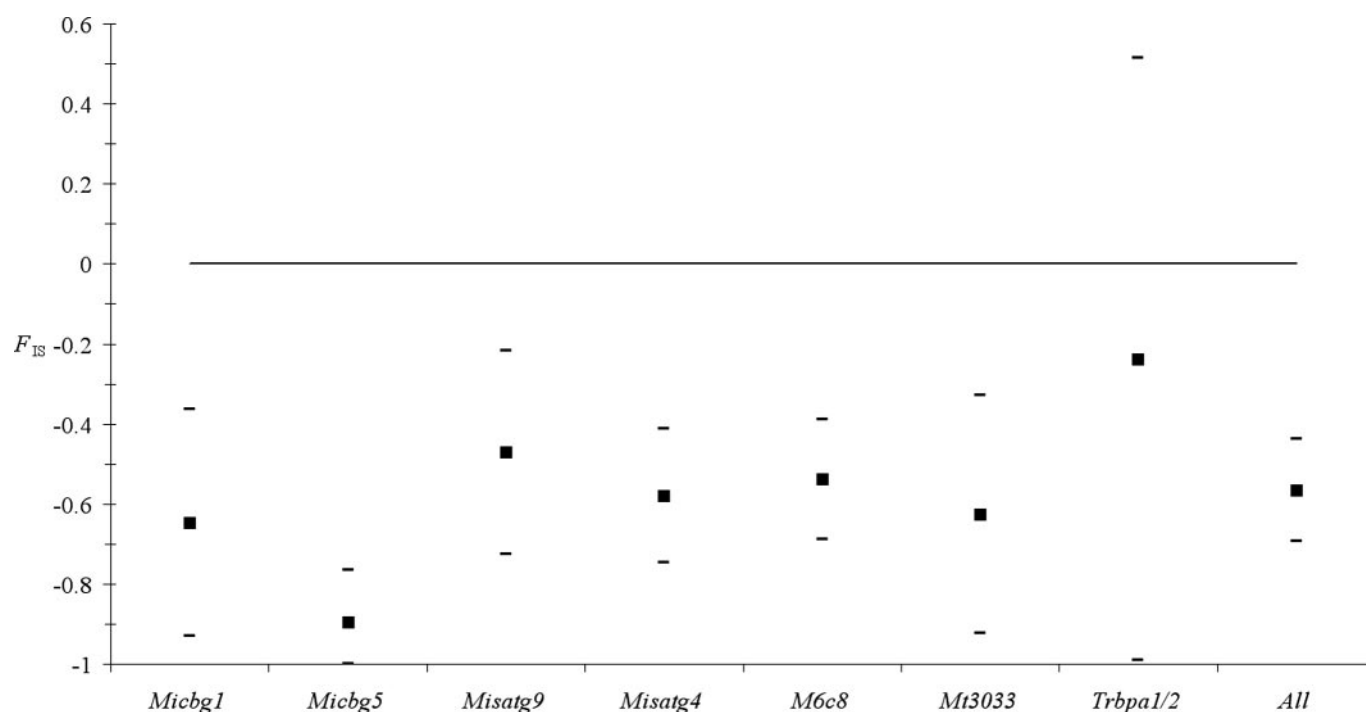


Fig. S1. As in Fig. 2 of the article but with locus *Trbpa1/2*. Mean F_{IS} is strongly negative; the standard error of F_{IS} over the seven loci is small (0.068). Therefore, the behavior of *TRBPA 1/2*, with a huge variance across subsamples, is more likely because of null alleles or selection than to rare events of sex (1, 10). This may be because of the fact that *Trbpa1/2* is the only locus located in an expressed gene (11). This locus was thus removed from the analyses.

Table S1. Stocks under study and microsatellite loci results. The number of alleles observed at each locus ranged from a minimum of 2 for *Micbg6* to a maximum of 12 for *Misatg9*. A total of 55 MLG (multilocus genotypes) were identified, which confirms that microsatellite loci are quite polymorphic in *T. b. gambiense* group 1.

Stocks	Year	Origin	<i>Micbg1</i>	<i>Micbg5</i>	<i>Micbg6</i>	<i>Misatg9</i>	<i>Misatg4</i>	<i>M6c8</i>	<i>Mt3033</i>	<i>Trbpa1/2</i>	MLG
70/2 KIVI ms	1998	Dubreka	162194	170226	182266	128190	115149	085165	154190	149203	1
F4/1 KIVI ms	1998	Dubreka	164200	172226	182266	128184	121143	085175	158190	149149	2
F31/4 KIVI ms	1998	Dubreka	164200	172226	182266	128184	121143	085175	158190	149149	2
F10/5 KIVI ms	1998	Dubreka	162194	172226	182266	130190	115143	085165	154178	149203	3
F35/2 KIVI ms	1998	Dubreka	164200	172226	182266	128176	121143	085175	158190	149149	4
B5/2 KIVI ms	1998	Dubreka	162194	172226	182266	130190	115143	085165	154178	149203	3
F34/1 KIVI ms	1998	Dubreka	162194	172226	182266	130190	115143	085165	154178	149203	3
B18/9 KIVI ms	1998	Dubreka	164200	172226	182266	128176	121143	085175	158190	149149	4
F2/2 KIVI ms	1998	Dubreka	162194	172226	182266	130190	115143	085165	154178	149203	3
F7/6 KIVI ms	1998	Dubreka	162194	172226	182266	130190	115143	085165	154178	149203	3
F55/3 KIVI ms	1998	Dubreka	164200	172266	182266	128176	121143	085175	158190	149149	47
B15/7 KIVI ms	1998	Dubreka	162194	172226	182266	130190	115143	085175	154178	149203	5
B34/2 KIVI ms	1998	Dubreka	162194	172226	182266	130190	115143	085165	154178	149203	3
F12/20 KIVI ms	1998	Dubreka	164200	172226	182266	128176	121143	085175	158190	149149	4
GCN1 KIVI ms	1998	Dubreka	162194	172226	182266	130190	121143	085165	154178	149203	6
Number of alleles	1998	Dubreka	4	4	2	5	4	3	4	2	
402/1 KIVI ms	2000	Bonon	162194	170226	182266	128184	115145	085165	154190	149203	7
B12/2/8 KIVI ms	2000	Bonon	162194	170226	182266	128184	115145	085165	154190	149203	7
B31/1/3 KIVI ms	2000	Bonon	162192	170226	182266	128184	115145	085157	154170	149203	8
DF1/4 KIVI ms	2000	Bonon	162194	170226	182266	128184	115145	085165	154190	149203	7
F41/7/2 KIVI ms	2000	Bonon	162194	170226	182266	128184	115145	085165	154190	149203	7
F5/10M KIVI ms	2000	Bonon	162194	170226	182266	128184	115145	085165	154190	149203	7
F71/1/2 KIVI ms	2000	Bonon	162194	170226	182266	128190	117149	085157	154190	149185	9
G10/6/2 KIVI ms	2000	Bonon	162194	170226	182266	128184	115145	085165	154178	149203	10
G11/6/4 KIVI ms	2000	Bonon	162194	170226	182266	130190	117149	085157	154178	149185	11
G11/8/2 KIVI ms	2000	Bonon	162194	170226	182266	128184	115145	085165	154190	149203	7
G17/6/1 KIVI ms	2000	Bonon	162194	170226	182266	128184	115145	085165	154190	149203	7
G3/10/25 KIVI ms	2000	Bonon	162194	170226	182266	128186	115145	085165	154190	149203	12
S24/7/9 KIVI ms	2000	Bonon	162194	170226	182266	128184	115145	085165	154190	149203	7
S27/16/13 KIVI ms	2000	Bonon	162194	170226	182266	128186	121145	085149	154190	149185	13
S27/2/6 KIVI ms	2000	Bonon	162194	170226	182266	130184	121145	085125	154190	149185	14
S3/4/1 KIVI ms	2000	Bonon	162194	170226	182266	128176	115145	085165	154190	149203	15
T66/4/2 KIVI ms	2000	Bonon	162194	170226	182266	128176	115145	085165	154190	149203	15
Number of alleles	2000	Bonon	3	2	2	6	5	5	4	3	
S12/9/5 KIVI ms	2002	Bonon	162194	170226	182266	128184	115143	085165	154178	149203	16
S14/5/1 KIVI ms	2002	Bonon	162194	170226	182266	128184	115145	085175	154190	149203	17
S11/1/6 KIVI ms	2002	Bonon	162194	170226	182266	128184	115145	085169	154178	149185	18
S72/2 KIVI ms	2002	Bonon	162194	170226	182266	128184	115145	085165	154178	149185	19
T41/4/14 KIVI ms	2002	Bonon	162194	170226	182266	128176	115145	085165	154190	149203	15
TT2/4 KIVI ms	2002	Bonon	162194	170226	182266	128184	115145	085157	154170	149185	20
TT22/1 KIVI ms	2002	Bonon	162194	170226	182266	128176	115145	085165	154190	141203	21
S12/9/5 RI ms	2002	Bonon	162194	170226	182266	128184	115143	085175	154178	149203	22
S14/5/1 RI ms	2002	Bonon	162194	170226	182266	128184	115145	085175	154190	149203	17
S11/1/6 RI ms	2002	Bonon	162194	170226	182266	128184	115145	085085	154178	149185	23
S72/2 RI ms	2002	Bonon	162194	170226	182266	128184	115145	085085	154178	149185	24
T41/4/14 RI ms	2002	Bonon	162194	170226	182266	128176	115145	085165	154190	149203	15
TT2/4 RI ms	2002	Bonon	162194	174226	182266	128176	121143	085165	154170	149203	25
TT22/1 RI ms	2002	Bonon	162194	170226	182266	128176	115145	085165	154190	141203	21
Number of alleles	2002	Bonon	2	3	2	3	4	5	4	4	
Yenb 11/2 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	149149	26
Lac 22/10 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	175175	27
Guen 4/1 KIVI ms	2002	Boffa	162194	172226	182266	128176	121143	085165	158178	149185	28
Dob1/2 KIVI ms	2002	Boffa	162194	172226	182266	128170	121143	085175	158178	149185	29
Wab 6/2 KIVI ms	2002	Boffa	162194	172226	182266	128176	121139	085175	158178	175175	30
Dob 7/11 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	149149	26
Lab 13/5 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	175175	27
Lab 15/2 KIVI ms	2002	Boffa	164200	172226	182266	128176	121145	085175	158178	149149	53
Lab 27/4 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	175175	27
Lac 22/11 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	149149	26
Lac 11/1 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	175175	27
Lac14/3 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	149185	31
Sac 23/3 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085157	158178	175175	32

Storks	Year	Origin	Micbg1	Micbg5	Micbg6	Misatg9	Misatg4	M6c8	Mt3033	Trbpa1/2	MLG
Souc 1/2 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	175175	27
Thic 29/7 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085157	158178	175175	32
Wab 18/23 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	149185	31
Wab 22/6 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	149149	26
Wab 6/1 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	175175	27
Yenb3/17 KIVI ms	2002	Boffa	164200	172226	182266	128176	121143	085175	158178	149149	26
3 Année/2 KIVI ms	2002	Boffa	164200	172226	182266	128170	121143	085157	158178	175175	33
Number of alleles	2002	Boffa	4	2	2	3	4	4	2	3	
Kanb16/16 KIVI ms	2002	Dubreka	162194	172226	182266	126176	121143	085175	158178	149149	34
Kanb 28/2 KIVI ms	2002	Dubreka	162194	172226	182266	128176	121143	085085	158178	149185	35
4 Année/3 KIVI ms	2002	Dubreka	162194	172226	182266	128192	121143	085175	158178	149203	36
Bob7/1 KIVI ms	2002	Dubreka	162194	172226	182266	130192	121143	085175	158178	149203	37
Kac 4/10 KIVI ms	2002	Dubreka	164200	172226	182266	128176	121143	085175	158178	149149	26
Kanb 9/5 KIVI ms	2002	Dubreka	164200	172226	182266	128176	121143	085165	158178	149149	38
Khob 34/1 KIVI ms	2002	Dubreka	162194	172226	182266	130130	115145	085165	158178	149149	39
Number of alleles	2002	Dubreka	4	2	2	5	4	3	2	3	
B4/F303 KIVI ms	2004	Bonon	162194	170226	182266	130184	121143	085157	154178	149185	40
B4/G27 KIVI ms	2004	Bonon	162194	170226	182266	128184	115143	085165	154190	149203	41
B4/I314 KIVI ms	2004	Bonon	162194	170226	182266	128194	115145	085165	154178	149185	42
B4/U163 KIVI ms	2004	Bonon	162194	170226	182266	128184	121145	085157	154178	149185	43
B4/F303 RI ms	2004	Bonon	162194	170226	182266	130184	115145	085165	154178	149185	44
B4/G27 RI ms	2004	Bonon	162194	170226	182266	128184	115145	085175	154178	149203	45
B4/I315 RI ms	2004	Bonon	162194	170226	182266	128184	115145	085157	154178	149185	46
B4/F303 BS ms	2004	Bonon	162194	170226	182266	130184	115145	085165	154178	149185	44
B4/G27 BS ms	2004	Bonon	162194	170226	182266	128184	115143	085165	154190	149203	41
B4/I314 BS ms	2004	Bonon	162194	170226	182266	128184	115145	085165	154178	149185	19
B4/I315 BS ms	2004	Bonon	164200	170226	182266	128184	115145	085165	154190	149185	48
B4/U163 BS ms	2004	Bonon	162194	170226	182266	128184	115145	0000	154190	149185	49
B4/E120 BS ms	2004	Bonon	162194	170226	0000	0000	115145	085085	154178	149203	50
B4/E427 BS ms	2004	Bonon	162194	176210	182266	122256	115145	097195	126170	185215	51
B4/G13 BS ms	2004	Bonon	162194	170226	182266	128184	101143	085175	154190	149185	52
B4/I36 BS ms	2004	Bonon	162194	170226	182266	0000	115145	085165	154178	149185	54
B4/I245 BS ms	2004	Bonon	162194	170226	182266	0000	0000	085165	154178	149185	55
Number of alleles	2004	Bonon	4	4	2	6	5	6	5	4	
Number of alleles	All	All	5	7	2	12	8	9	6	6	

The number of alleles observed at each locus ranged from a minimum of 2 for *Micbg6* to a maximum of 12 for *Misatg9*. A total of 55 MLG (multilocus genotypes) were identified, which confirms that microsatellite loci are quite polymorphic in *T. b. gambiense* group 1.

Results are given as followed: XXXYYY where XXX is the size (band pair) of the smallest allele and YYY is the size of the biggest one. For example, 402/1 KIVI (Bonon 2000) gave two alleles for locus *Micb1*: 162 and 194 = 162194.

BS ms, blood sample taken during medical survey; KIVI ms, = KIVI performed; RI ms, rodent inoculation performed during medical survey during medical survey; 0000 = absence of band

Table S2. Linkage disequilibrium tests between loci pairs

Locus 1	Locus 2	<i>P</i> -value	Bonferroni
Micbg1	Mt3033	0.0001	0.0021
Misatg9	Mt3033	0.0001	0.002
Misatg9	Trbpa1/2	0.0001	0.0019
Misatg4	Trbpa1/2	0.0001	0.0018
M6c8	Trbpa1/2	0.0001	0.0017
Mt3033	Trbpa1/2	0.0001	0.0016
Micbg1	Trbpa1/2	0.0003	0.0045
Micbg5	Mt3033	0.0005	0.007
Misatg4	Mt3033	0.0007	0.0091
Misatg9	Misatg4	0.0015	0.018
M6c8	Mt3033	0.0016	0.0176
Misatg9	M6c8	0.0033	0.033
Micbg1	M6c8	0.0056	0.0504
Micbg1	Misatg9	0.0112	0.0896
Micbg1	Misatg4	0.0118	0.0826
Micbg5	Misatg9	0.012	0.072
Misatg4	M6c8	0.0208	0.104
Micbg5	Trbpa1/2	0.0435	0.174
Micbg5	Misatg4	0.0522	0.1566
Micbg5	M6c8	0.2463	0.4926
Micbg1	Micbg5	0.6775	0.6775

Significant values are in bold. *P*-values after the sequential Bonferroni correction are also shown.

Table S3. GPS coordinates of patients with *T. brucei gambiense* from Bonon 2000 and 2002

Stocks	Year	Longitude	Latitude
S24/7/9 KIVI ms	2000	−6.089	6.900
B12/2/8 KIVI ms	2000	−6.056	6.925
F7/1/2 KIVI ms	2000	−6.055	6.919
S3/4/1 KIVI ms	2000	−6.050	6.921
F5/10M KIVI ms	2000	−6.050	6.921
G17/6/1 KIVI ms	2000	−6.050	6.928
DF1/4 KIVI ms	2000	−6.047	6.917
G11/6/4 KIVI ms	2000	−6.045	6.914
G11/8/2 KIVI ms	2000	−6.044	6.914
G3/10/25 KIVI ms	2000	−6.044	6.915
S27/2/6 KIVI ms	2000	−6.045	6.918
S27/16/13 KIVI ms	2000	−6.045	6.917
G10/6/2 KIVI ms	2000	−6.045	6.916
F41/7/2 KIVI ms	2000	−6.044	6.921
B3/1/3 KIVI ms	2000	−6.044	6.920
T66/4/2 KIVI ms	2000	−6.042	6.929
402/1 KIVI ms	2000	−6.034	6.890
TT2/4 KIVI ms	2002	−6.090	6.900
TT2/4 RI ms	2002	−6.090	6.900
TT22/1 KIVI ms	2002	−6.090	6.900
TT22/1 RI ms	2002	−6.090	6.900
S7/2/2 KIVI ms	2002	−6.055	6.920
S7/2/2 RI ms	2002	−6.055	6.920
S14/5/1 KIVI ms	2002	−6.054	6.922
S14/5/1 RI ms	2002	−6.054	6.922
S12/9/5 KIVI ms	2002	−6.053	6.922
S12/9/5 RI ms	2002	−6.053	6.922
S1/1/6 KIVI ms	2002	−6.049	6.921
S1/1/6 RI ms	2002	−6.049	6.921
T41/4/14 KIVI ms	2002	−6.042	6.919
T41/4/14 RI ms	2002	−6.042	6.919

Table S4. Genetic differentiation between *T. brucei brucei* stocks isolated with different techniques as measured with Wright's F_{ST} and tested with randomization (P -value).

Sub-sample pairs		Seven 7 loci		MLG	
		F_{ST}	P -value	F_{ST}	P -value
Bonon 2002 KIVI	Bonon2002 RI	−0.018	0.9532	−0.065	1
Bonon 2004 KIVI	Bonon2004 RI	−0.015	0.7241	0.000	1
Bonon 2004 KIVI	Bonon2004BS	−0.010	0.6712	−0.026	1
Bonon 2004 RI	Bonon2004BS	−0.020	0.8306	−0.035	1

In the Ivory Coast, 3 different methods were used to isolate trypanosomes from HAT patients: KIVI, RI, BS (see details in ref. 41). In Bonon 2002, 7 stocks isolated by KIVI and RI (14 isolates). In 2002, two stocks were isolated by KIVI, RI, and BS (6 isolates), 2 stocks by KIVI and BS (4 isolates), and 1 stock by RI and BS (2 isolates) labeled as in Koffi *et al.* (21) (see Table S4 for details). Table values are given for the 7 microsatellite loci (*Micbg6* excluded) and for MLG.

Other Supporting Information Files

[SI Appendix](#)