

Table S1. Species composition of the *An. gambiae s.l* collected indoor.

Year	Locality	Proportion of the different species of <i>An. gambiae</i> complex			N	Proportion of the incipient species of <i>An. gambiae</i> s.s.			N
		<i>An. arabiensis</i>	<i>An. melas</i>	<i>An. gambiae</i> s.s.		<i>An. coluzzii</i>	<i>An. gambiae</i>	<i>An. coluzzii/An. gambiae</i>	
2017	Kedougou	36 (16.36%)	-	184 (83.64%)	220	9 (4.92%)	172 (93.99%)	3 (1.64%)	184
	Tambacounda	68 (28.94%)	-	167 (71.06%)	235	14 (8.28%)	148 (87.57%)	5 (2.96%)	167
	Fatick	165 (81.68%)	9 (4.46%)	28 (13.86%)	202	19 (67.85%)	8 (28.57%)	1 (3.57%)	28
2018	Kedougou	10 (7.46%)	-	124 (92.54%)	134	12 (9.68%)	112 (90.32%)	-	124
	Tambacounda	79 (15.64%)	-	426 (84.36%)	505	99 (23.23%)	313 (73.47%)	14 (3.29%)	426
	Fatick	116 (65.17%)	1 (0.56%)	61 (34.27%)	178	54 (88.52%)	6 (9.84%)	1 (1.64%)	61

Abbreviations: N total number of specimens collected; *An. coluzzii/An. gambiae* hybrid obtained after molecular identification by PCR.

Table S2: Species composition of adult from Larvae collection.

Locality	Proportion of the different species of <i>An. gambiae</i> complex			Proportion of the incipient species of <i>An. gambiae</i>			N
	<i>An. arabiensis</i>	<i>An. gambiae</i>	N	<i>An. coluzzii</i>	<i>An. gambiae</i>	<i>An. coluzzii/An. gambiae</i>	
Kedougou	38 (8.05%)	434 (91.95%)	472	53 (12.21%)	376 (86.64%)	5 (1.15%)	434
Tambacounda	185 (47.80%)	202 (52.20%)	387	101 (50%)	95 (47.03%)	6 (2.97%)	202
Fatick	199 (85.78%)	33 (14.22%)	232	5 (15.15%)	28 (84.85%)	-	33

Abbreviations: N total number of specimens collected; An. coluzzii/An. gambiae hybrid obtained after molecular identification by PCR.

Table S3. Genetic diversity parameter of voltage gate sodium channel gene.

	2N	S	h	Hd	π	D	D*
Kedougou <i>An. coluzzii</i>	12	3	2	0.409	0.002	0.77	1.105
Kedougou <i>An. gambiae</i>	24	0	1	0	0.000	/	/
Kedougou Hybride	8	1	2	0.25	0.001	-1.31 ^{ns}	-1.41 ^{ns}
Tamba <i>An. coluzzii</i>	22	3	3	0,498	0.002	1.427 ^{ns}	0.991 ^{ns}
Tamba <i>An. gambiae</i>	24	0	1	0	0.000	/	/
Tamba Hybride	8	0	1	0.000	0.000	/	/
Total	98	5	4	0.219	0.001	-0.804 ^{ns}	-1.088 ^{ns}

Abbreviations: 2N, number of sequences; S, number of polymorphic sites; h, haplotype; Hd, haplotype diversity; π , nucleotide diversity; D, Tajima's statistic; D*, Fu and Li's statistic; ns, not significant