

**Table S1.** *Culicoides* specimen details, including COI, 16S rDNA and 28S rDNA sequences (-indicate missing sequence), GenBank accession numbers, and sample location information

Specimen ID	<i>Culicoides</i> species	COI gene Genbank	16SrDNA Genbank	28SrDNA Genbank	Country	Province	Locality
A12HPHSEN	<i>C. austeni</i>	MF399685	MF422807	MF422954	Senegal	Dakar	Parc de Hann
B2HMAMG	<i>C. bolitinos</i>	MF399693	MF422815	MF422961	Madagascar	Toamasina	Masoandro
B3BMAMG	<i>C. bolitinos</i>	MF399694	MF422816	MF422962	Madagascar	Toamasina	Masoandro
B5EMAMZ	<i>C. bolitinos</i>	MF399703	MF422825	MF422971	Mozambique	Maputo	Maputo
E4GMKKEN	<i>C. bolitinos</i>	MF399763	MF422885	MF423031	Kenya	Kitui	Munukathi
E5AMKKEN	<i>C. bolitinos</i>	MF399764	MF422886	MF423032	Kenya	Kitui	Munukathi
E5EMKKEN	<i>C. bolitinos</i>	MF399766	MF422888	MF423034	Kenya	Kitui	Munukathi
E5GMKKEN	<i>C. bolitinos</i>	MF399767	MF422889	MF423035	Kenya	Kitui	Munukathi
KEN.54	<i>C. bolitinos</i>	MF399782	MF422903	MF423046	Kenya	Kitui	Munukathi
KEN.55	<i>C. bolitinos</i>	MF399783	MF422904	MF423047	Kenya	Kitui	Munukathi
KEN.56	<i>C. bolitinos</i>	-	-	MF423048	Kenya	Kitui	Munukathi
RE.BG.01	<i>C. bolitinos</i>	MF399787	MF422907	MF423052	France-Reunion Island	Saint-Denis	Le Tampon
RE.BG.02	<i>C. bolitinos</i>	MF399788	MF422908	MF423053	France-Reunion Island	Saint-Denis	Le Tampon
ZA.33	<i>C. bolitinos</i>	-	MF422931	MF423076	South Africa	Eastern Cape	Port Elizabeth
ZA.34	<i>C. bolitinos</i>	-	MF422932	MF423077	South Africa	Eastern Cape	Port Elizabeth
ZA.35	<i>C. bolitinos</i>	-	MF422933	MF423078	South Africa	Eastern Cape	Port Elizabeth
ZA.KW.01	<i>C. bolitinos</i>	MF399809	MF422941	MF423086	South Africa	Kwazulu-Natal	Kwazulu-Natal
B1GMAMG	<i>C. enderleini</i>	MF399688	MF422810	MF422956	Madagascar	Toamasina	Masoandro
B1HMAMG	<i>C. enderleini</i>	MF399689	MF422811	MF422957	Madagascar	Toamasina	Masoandro
B6FMAMZ	<i>C. enderleini</i>	MF399706	MF422828	MF422974	Mozambique	Maputo	Maputo
B6GMAMZ	<i>C. enderleini</i>	MF399707	MF422829	MF422975	Mozambique	Maputo	Maputo
B6HMAMZ	<i>C. enderleini</i>	MF399708	MF422830	MF422976	Mozambique	Maputo	Maputo
C5EMBSSEN	<i>C. enderleini</i>	MF399733	MF422855	MF423001	Senegal	Dakar	Mbao
D7HPLGML	<i>C. enderleini</i>	MF399752	MF422874	MF423020	Mali	Gao	Gao
D8APLGML	<i>C. enderleini</i>	MF399753	MF422875	MF423021	Mali	Gao	Gao
D8BPLGML	<i>C. enderleini</i>	MF399754	MF422876	MF423022	Mali	Gao	Gao
D8CPLGML	<i>C. enderleini</i>	MF399755	MF422877	MF423023	Mali	Gao	Gao
F1HMKKEN	<i>C. enderleini</i>	MF399770	MF422892	MF423038	Kenya	Kitui	Munukathi
G4GBOSBEN	<i>C. enderleini</i>	MF399775	MF422896	MF423040	Benin	Atlantique	Tori-Bossito
G4HBOSBEN	<i>C. enderleini</i>	MF399776	MF422897	MF423041	Benin	Atlantique	Tori-Bossito
E2FSWZW	<i>C. exspectator</i>	MF399758	MF422880	MF423026	Zimbabwe	Harare	Swimuwini
E2GSWZW	<i>C. exspectator</i>	MF399759	MF422881	MF423027	Zimbabwe	Harare	Swimuwini
REU.49	<i>C. grahamii</i>	MF399790	MF422910	MF423055	France-Reunion Island	Saint-Denis	Le Tampon
REU.50	<i>C. grahamii</i>	MF399791	MF422911	MF423056	France-Reunion Island	Saint-Denis	Le Tampon
REU.51	<i>C. grahamii</i>	MF399792	MF422912	MF423057	France-Reunion Island	Saint-Denis	Le Tampon
E4AMKKEN	<i>C. gulbenkiani</i>	MF399760	MF422882	MF423028	Kenya	Kitui	Munukathi
ZA.31	<i>C. gulbenkiani</i>	-	-	MF423074	South Africa	Eastern Cape	Komga
ZA.32	<i>C. gulbenkiani</i>	-	-	MF423075	South Africa	Eastern Cape	Komga
A10GPHSEN	<i>C. imicola</i>	-	-	-	Senegal	Dakar	Parc de Hann
A11BPHSEN	<i>C. imicola</i>	-	-	-	Senegal	Dakar	Parc de Hann
A11DPHSEN	<i>C. imicola</i>	-	-	-	Senegal	Dakar	Parc de Hann
A11FPHSEN	<i>C. imicola</i>	-	-	-	Senegal	Dakar	Parc de Hann
A11HPHSEN	<i>C. imicola</i>	MF399681	MF422803	MF422950	Senegal	Dakar	Parc de Hann
A12BPHSEN	<i>C. imicola</i>	MF399682	MF422804	MF422951	Senegal	Dakar	Parc de Hann
A12DPHSEN	<i>C. imicola</i>	MF399683	MF422805	MF422952	Senegal	Dakar	Parc de Hann
A12FPHSEN	<i>C. imicola</i>	-	-	-	Senegal	Dakar	Parc de Hann
A12GPHSEN	<i>C. imicola</i>	MF399684	MF422806	MF422953	Senegal	Dakar	Parc de Hann
B2DMAMG	<i>C. imicola</i>	MF399692	MF422814	MF422960	Madagascar	Toamasina	Masoandro
B5CMAMZ	<i>C. imicola</i>	MF399701	MF422823	MF422969	Mozambique	Maputo	Maputo
B5DMAMZ	<i>C. imicola</i>	MF399702	MF422824	MF422970	Mozambique	Maputo	Maputo
B9APOSEN	<i>C. imicola</i>	MF399710	MF422832	MF422978	Senegal	Thies	Pout
C12FSARSEN	<i>C. imicola</i>	-	-	-	Senegal	Kedougou	Saraya
C2HTHSEN	<i>C. imicola</i>	-	-	-	Senegal	Thies	Thies
D4GSALSEN	<i>C. imicola</i>	MF399748	MF422870	MF423016	Senegal	Kolda	Salikegne
D5BBOGCAM	<i>C. imicola</i>	MF399749	MF422871	MF423017	Cameroon	Garoua	Bokke Garoua
D7BPLGML	<i>C. imicola</i>	MF399750	MF422872	MF423018	Mali	Gao	Gao
G6GBEN	<i>C. imicola</i>	MF399779	MF422900	MF423044	Benin	Atlantique	Ouidah

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**Table S1.** *Culicoides* specimen details, including COI, 16S rDNA and 28S rDNA sequences (-indicate missing sequence), GenBank accession numbers, and sample location information

Specimen ID	<i>Culicoides</i> species	COI gene Genbank	16SrDNA Genbank	28SrDNA Genbank	Country	Province	Locality
ZA.22	<i>C. isioloenis</i>	MF399799	MF422926	MF423069	South Africa	Eastern Cape	Port Elizabeth
ZA.23	<i>C. isioloenis</i>	MF399800	MF422927	MF423070	South Africa	Eastern Cape	Port Elizabeth
ZA.KR.07	<i>C. kanagai</i>	MF399811	MF422940	MF423085	South Africa	Mpumalanga	Kruger
RE.BG.06	<i>C. kibatiensis</i>	MF399789	MF422909	MF423054	France-Reunion Island	Saint-Denis	Le Tampon
C7BSARSEN	<i>C. kingi</i>	MF399737	MF422859	MF423005	Senegal	Kedougou	Saraya
F4DAWPET	<i>C. kingi</i>	MF399771	MF422893	-	Ethiopia	Afar	Awash Park
F4EAWPET	<i>C. kingi</i>	MF399772	-	-	Ethiopia	Afar	Awash Park
F4GAWPET	<i>C. kingi</i>	MF399773	MF422894	-	Ethiopia	Afar	Awash Park
G7FBOGCAM	<i>C. kingi</i>	MF399780	MF422901	-	Cameroon	Garoua	Bokke Garoua
ZA.41	<i>C. kwagga</i>	MF399803	MF422934	MF423079	South Africa	Gauteng	Pretoria
ZA.42	<i>C. kwagga</i>	MF399804	MF422935	MF423080	South Africa	Gauteng	Pretoria
ZA.KR.01	<i>C. loxodontis</i>	MF399807	MF422938	MF423083	South Africa	Mpumalanga	Kruger
ZA.KR.02	<i>C. loxodontis</i>	MF399808	MF422939	MF423084	South Africa	Mpumalanga	Kruger
D8FPLGML	<i>C. milnei</i>	MF399757	MF422879	MF423025	Mali	Gao	Gao
BF.BB.01	<i>C. miombo</i>	MF399711	MF422833	MF422979	Burkina Faso	Bobo-Dioulasso	Bobo-Dioulasso
C7DSARSEN	<i>C. miombo</i>	-	-	-	Senegal	Kedougou	Saraya
C7FSARSEN	<i>C. miombo</i>	-	-	-	Senegal	Kedougou	Saraya
C7GSARSEN	<i>C. miombo</i>	-	-	-	Senegal	Kedougou	Saraya
D3HSALSEN	<i>C. miombo</i>	MF399745	MF422867	MF423013	Senegal	Kolda	Salikegne
D4BSALSEN	<i>C. miombo</i>	MF399746	MF422868	MF423014	Senegal	Kolda	Salikegne
D4CSALSEN	<i>C. miombo</i>	MF399747	MF422869	MF423015	Senegal	Kolda	Salikegne
E5CMKKEN	<i>C. miombo</i>	MF399765	MF422887	MF423033	Kenya	Kitui	Munukathi
E9HMKKEN	<i>C. miombo</i>	MF399768	MF422890	MF423036	Kenya	Kitui	Munukathi
F10BBEN	<i>C. miombo</i>	-	-	-	Benin	Atlantique	Ouidah
G5DBEN	<i>C. miombo</i>	MF399777	MF422898	MF423042	Benin	Atlantique	Ouidah
G5HBEN	<i>C. miombo</i>	MF399778	MF422899	MF423043	Benin	Atlantique	Ouidah
C1AMBSEN	<i>C. moreli</i>	MF399714	MF422836	MF422982	Senegal	Dakar	Mbao
C1BMBSEN	<i>C. moreli</i>	MF399715	MF422837	MF422983	Senegal	Dakar	Mbao
C1CMBSEN	<i>C. moreli</i>	-	-	-	Senegal	Dakar	Mbao
C1DMBSEN	<i>C. moreli</i>	MF399716	MF422838	MF422984	Senegal	Dakar	Mbao
C1EMBSEN	<i>C. moreli</i>	MF399717	MF422839	MF422985	Senegal	Dakar	Mbao
F6EMKKEN	<i>C. moreli</i>	MF399774	MF422895	MF423039	Kenya	Kitui	Munukathi
G8FPLGML	<i>C. moreli</i>	MF399781	MF422902	MF423045	Mali	Gao	Gao
ZA.52	<i>C. neavei</i>	MF399805	MF422936	MF423081	South Africa	Gauteng	Pretoria
B1BMAMG	<i>C. nevilli</i>	MF399686	MF422808	-	Madagascar	Toamasina	Masoandro
B1CMAMG	<i>C. nevilli</i>	MF399687	MF422809	MF422955	Madagascar	Toamasina	Masoandro
B3FMAMG	<i>C. nevilli</i>	MF399696	MF422818	MF422964	Madagascar	Toamasina	Masoandro
C6GSARSEN	<i>C. nevilli</i>	MF399736	MF422858	MF423004	Senegal	Kedougou	Saraya
ZA.53	<i>C. ovalis</i>	MF399806	MF422937	MF423082	South Africa	Mpumalanga	Nelspruit
C12HMBSEN	<i>C. oxystoma</i>	MF399738	MF422860	MF423006	Senegal	Dakar	Mbao
C4GMBSEN	<i>C. oxystoma</i>	MF399728	MF422850	MF422996	Senegal	Dakar	Mbao
C4HMBSEN	<i>C. oxystoma</i>	MF399729	MF422851	MF422997	Senegal	Dakar	Mbao
C5AMBSEN	<i>C. oxystoma</i>	MF399730	MF422852	MF422998	Senegal	Dakar	Mbao
C5BMBSEN	<i>C. oxystoma</i>	MF399731	MF422853	MF422999	Senegal	Dakar	Mbao
C5DMBSEN	<i>C. oxystoma</i>	MF399732	MF422854	MF423000	Senegal	Dakar	Mbao
C5FMBSEN	<i>C. oxystoma</i>	MF399734	MF422856	MF423002	Senegal	Dakar	Mbao
D7GPLGML	<i>C. oxystoma</i>	MF399751	MF422873	MF423019	Mali	Gao	Gao
D8DPLGML	<i>C. oxystoma</i>	MF399756	MF422878	MF423024	Mali	Gao	Gao
LB.38	<i>C. oxystoma</i>	MF399784	-	MF423049	Liban		Cheik Taba
LB.39	<i>C. oxystoma</i>	MF399785	MF422905	MF423050	Liban		Sirel gharbieh
LB.40	<i>C. oxystoma</i>	MF399786	MF422906	MF423051	Liban		Sirel gharbieh

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**Table S1.** *Culicoides* specimen details, including COI, 16S rDNA and 28S rDNA sequences (-indicate missing sequence), GenBank accession numbers, and sample location information

Specimen ID	<i>Culicoides</i> species	COI gene Genbank	16SrDNA Genbank	28SrDNA Genbank	Country	Province	Locality
B8CPOSEN	<i>C. pseudopallidipennis</i>	MF399709	MF422831	MF422977	Senegal	Thies	Pout
BJ.TR.13	<i>C. pseudopallidipennis</i>	MF399712	MF422834	MF422980	Benin	Atlantique	Tori-Bossito
BJ.TR.14	<i>C. pseudopallidipennis</i>	MF399713	MF422835	MF422981	Benin	Atlantique	Tori-Bossito
C2ATHSEN	<i>C. pseudopallidipennis</i>	MF399718	MF422840	MF422986	Senegal	Thies	Thies
C2BTHSEN	<i>C. pseudopallidipennis</i>	MF399719	MF422841	MF422987	Senegal	Thies	Thies
C2DTHSEN	<i>C. pseudopallidipennis</i>	MF399720	MF422842	MF422988	Senegal	Thies	Thies
C2FTHSEN	<i>C. pseudopallidipennis</i>	MF399721	MF422843	MF422989	Senegal	Thies	Thies
C3BTHSEN	<i>C. pseudopallidipennis</i>	MF399722	MF422844	MF422990	Senegal	Thies	Thies
C3CTHSEN	<i>C. pseudopallidipennis</i>	MF399723	MF422845	MF422991	Senegal	Thies	Thies
C3GTHSEN	<i>C. pseudopallidipennis</i>	MF399724	MF422846	MF422992	Senegal	Thies	Thies
C5GTHSEN	<i>C. pseudopallidipennis</i>	-	-	-	Senegal	Thies	Thies
C5HTHSEN	<i>C. pseudopallidipennis</i>	MF399735	MF422857	MF423003	Senegal	Thies	Thies
C6BTHSEN	<i>C. pseudopallidipennis</i>	-	-	-	Senegal	Thies	Thies
C6CTHSEN	<i>C. pseudopallidipennis</i>	-	-	-	Senegal	Thies	Thies
A8FSWZW	<i>C. ravus</i>	MF399678	MF422800	MF422947	Zimbabwe	Harare	Malipati
A8GSWZW	<i>C. ravus</i>	MF399679	MF422801	MF422948	Zimbabwe	Harare	Malipati
B3HMAMZ	<i>C. schultzei</i>	MF399697	MF422819	MF422965	Mozambique	Maputo	Maputo
B4FMAMZ	<i>C. schultzei</i>	MF399699	MF422821	MF422967	Mozambique	Maputo	Maputo
C4CMBSSEN	<i>C. similis</i>	MF399725	MF422847	MF422993	Senegal	Dakar	Mbao
C4DMBSSEN	<i>C. similis</i>	MF399726	MF422848	MF422994	Senegal	Dakar	Mbao
C4EMBSSEN	<i>C. similis</i>	MF399727	MF422849	MF422995	Senegal	Dakar	Mbao
ZA.27	<i>C. similis</i>	MF399801	MF422928	MF423071	South Africa	Eastern Cape	Port Elizabeth
ZA.28	<i>C. similis</i>	-	MF422929	MF423072	South Africa	Eastern Cape	Port Elizabeth
ZA.29	<i>C. similis</i>	MF399802	MF422930	MF423073	South Africa	Eastern Cape	Port Elizabeth
D2DSARSEN	<i>C. sp. # 20</i>	MF399739	MF422861	MF423007	Senegal	Kedougou	Saraya
D2ESARSEN	<i>C. sp. # 20</i>	MF399740	MF422862	MF423008	Senegal	Kedougou	Saraya
D2FSARSEN	<i>C. sp. # 20</i>	MF399741	MF422863	MF423009	Senegal	Kedougou	Saraya
D2GSARSEN	<i>C. sp. # 20</i>	MF399742	MF422864	MF423010	Senegal	Kedougou	Saraya
D2HSARSEN	<i>C. sp. # 20</i>	MF399743	MF422865	MF423011	Senegal	Kedougou	Saraya
D3ASARSEN	<i>C. sp. # 20</i>	MF399744	MF422866	MF423012	Senegal	Kedougou	Saraya
SEN.43	<i>C. sp. # 20</i>	-	-	MF423058	Senegal	Kedougou	Saraya
SEN.44	<i>C. sp. # 20</i>	-	-	MF423059	Senegal	Kedougou	Saraya
SEN.45	<i>C. sp. # 20</i>	-	-	MF423060	Senegal	Kedougou	Saraya
SEN.47	<i>C. sp. # 20</i>	-	-	MF423061	Senegal	Kedougou	Saraya
E4EMKKEN	<i>C. sp. # 22</i>	MF399761	MF422883	MF423029	Kenya	Kitui	Munukathi
E4FMKKEN	<i>C. sp. # 22</i>	MF399762	MF422884	MF423030	Kenya	Kitui	Munukathi
ZA.15	<i>C. sp. # 54 df</i>	MF399795	MF422923	MF423065	South Africa	Eastern Cape	Port Elizabeth
A4FSWZW	<i>C. sp. # 54 df</i>	MF399674	MF422796	MF422943	Zimbabwe	Harare	Swimuwini
ZA.10	<i>C. sp. # 54 pf</i>	-	MF422920	-	South Africa	Eastern Cape	Port Elizabeth
ZA.11	<i>C. sp. # 54 pf</i>	-	MF422921	-	South Africa	Eastern Cape	Port Elizabeth
ZA.12	<i>C. sp. # 54 pf</i>	-	MF422922	-	South Africa	Eastern Cape	Port Elizabeth
B4AMAMZ	<i>C. subschultzei</i>	-	-	-	Mozambique	Maputo	Maputo
B4CMAMZ	<i>C. subschultzei</i>	-	-	-	Mozambique	Maputo	Maputo
B4DMAMZ	<i>C. subschultzei</i>	MF399698	MF422820	MF422966	Mozambique	Maputo	Maputo
B4EMAMZ	<i>C. subschultzei</i>	-	-	-	Mozambique	Maputo	Maputo
B4GMAMZ	<i>C. subschultzei</i>	-	-	-	Mozambique	Maputo	Maputo
B4HMAMZ	<i>C. subschultzei</i>	-	-	-	Mozambique	Maputo	Maputo
B5AMAMZ	<i>C. subschultzei</i>	MF399700	MF422822	MF422968	Mozambique	Maputo	Maputo
A9AMAZW	<i>C. subschultzei</i>	MF399680	MF422802	MF422949	Zimbabwe	Harare	Malipati
B5GMAMZ	<i>C. subschultzei</i>	-	-	-	Mozambique	Maputo	Maputo
B6AMAMZ	<i>C. subschultzei</i>	MF399704	MF422826	MF422972	Mozambique	Maputo	Maputo
B6CMAMZ	<i>C. subschultzei</i>	MF399705	MF422827	MF422973	Mozambique	Maputo	Maputo
ZA.1	<i>C. trifasciellus</i>	-	MF422913	-	South Africa	Eastern Cape	Komga
ZA.2	<i>C. trifasciellus</i>	-	MF422914	-	South Africa	Eastern Cape	Komga
ZA.3	<i>C. trifasciellus</i>	-	MF422915	MF423062	South Africa	Eastern Cape	Komga
ZA.4	<i>C. trifasciellus</i>	-	MF422916	-	South Africa	Eastern Cape	Komga
ZA.5	<i>C. trifasciellus</i>	-	MF422917	-	South Africa	Eastern Cape	Komga

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**Table S1.** *Culicoides* specimen details, including COI, 16S rDNA and 28S rDNA sequences (-indicate missing sequence), GenBank accession numbers, and sample location information

<b>Specimen ID</b>	<b><i>Culicoides</i> species</b>	<b>COI gene Genbank</b>	<b>16SrDNA Genbank</b>	<b>28SrDNA Genbank</b>	<b>Country</b>	<b>Province</b>	<b>Locality</b>
ZA.19	<i>C. tropicalis</i>	MF399796	MF422924	MF423066	South Africa	Eastern Cape	Port Elizabeth
ZA.20	<i>C. tropicalis</i>	MF399797	MF422925	MF423067	South Africa	Eastern Cape	Port Elizabeth
ZA.21	<i>C. tropicalis</i>	MF399798	-	MF423068	South Africa	Eastern Cape	Port Elizabeth
A7EMAZW	<i>C. tuttifrutti</i>	MF399675	MF422797	MF422944	Zimbabwe	Harare	Malipati
A7GMAZW	<i>C. tuttifrutti</i>	MF399676	MF422798	MF422945	Zimbabwe	Harare	Malipati
A7HMAZW	<i>C. tuttifrutti</i>	MF399677	MF422799	MF422946	Zimbabwe	Harare	Malipati
ZA.PR.06	<i>C. tuttifrutti</i>	MF399810	MF422942	MF423087	South Africa	Gauteng	Pretoria
B2AMAMG	<i>C. zuluensis</i>	MF399690	MF422812	MF422958	Madagascar	Toamasina	Masoandro
B2CMAMG	<i>C. zuluensis</i>	MF399691	MF422813	MF422959	Madagascar	Toamasina	Masoandro
B3CMAMG	<i>C. zuluensis</i>	MF399695	MF422817	MF422963	Madagascar	Toamasina	Masoandro
B3DMAMG	<i>C. zuluensis</i>	-	-	-	Madagascar	Toamasina	Masoandro
F1DMKKEN	<i>C. zuluensis</i>	MF399769	MF422891	MF423037	Kenya	Kitui	Munukathi
ZA.6	<i>C. zuluensis</i>	MF399793	MF422918	MF423063	South Africa	Eastern Cape	Port Elizabeth
ZA.7	<i>C. zuluensis</i>	MF399794	MF422919	MF423064	South Africa	Eastern Cape	Port Elizabeth