

Supplementary information

Table S1. Details of sites at which *S. damnosum* larvae or pupae were surveyed in the Maridi River and its tributaries.

Site No.	Date/2019	River	Site	GPS reading	Elevation	Remarks
1	28 Nov.	Itri	Footbridge	N:4° 53' 43.6" E: 29° 26' 59"	699 m	Swampy poor flow
2	29 Nov.	Maridi	Papyrus site	N: 4° 53' 45.4" E: 29° 27' 30.9"	682 m	Papyrus swamp, poor flow
3	29 Nov.	Maridi	Fish net point	N: 4° 53' 53.7" E: 29° 27' 33.5"	693 m	Sluggish flow
4	29 Nov.	Molisikanga	Footbridge	N: 4° 53' 54.2° E: 29° 27' 39.6"	697 m	Papyrus swamp, poor flow
5	29 Nov.	Maridi	Spring well	N: 4° 54' 8.7" E: 29° 27' 38.9"	690 m	Papyrus swamp, poor flow
6	29 Nov.	Maridi	Matara footbridge	N: 4° 54' 19.7" E: 29° 27' 41.9"	696 m	Sluggish flow, papyrus choked
7	29 Nov.	Marindo	Main bridge	N: 4° 54' 44.4" E: 29° 27' 61.9"	697 m	Emerges from papyrus swamp
8	29 Nov.	Maridi	Maridi town bridge	N: 4° 54' 55.3" E: 29° 27' 42.6"	690 m	Poor flow emerging from swamp
9	30 Nov.	Maridi dam	Balaba village	N: 4° 53' 21.3" E: 29° 27' 58.8"	704 m	Stagnant water with papyrus
10	30 Nov.	Balaba	Yei road crossing	N:4° 53' 10.2" E: 29° 28' 6.6"	699 m	Emerging from extensive swamp
11	30 Nov.	Maridi dam	Kazana PS	N: 4° 53' 14.7" E: 29° 27' 58"	696 m	Stagnant water
12	30 Nov.	Maridi	Foot crossing to Kazana 2	N: 4° 53' 4.2" E: 29° 28' 4.8"	697 m	Flows through papyrus swamp
13	2 Dec.	Maridi	Temeregia crossing	N: 4° 55' 8.5" E: 29° 27' 36.9"	683 m	Fast flowing, heavy algae lining on rocks
14	2 Dec.	Maridi	Hi-Taraba village	N: 4° 55' 20.8" E: 29° 27' 43.9"	689 m	Dominated with swamp

15	2 Dec.	Munguo	Confluence with Maridi	N: 4° 56' 21.3" E: 29° 27' 3.7"	674 m	Swampy with no flow
16	2 Dec.	Maridi	Dam spillway	N: 4° 53' 41" E: 29° 27' 27.5"	696 m	Heavy breeding of <i>S. damnosum</i> ++++
17	3 Dec.	Maridi	Cugamal village	N: 4° 55' 19.4" E: 29° 27' 38.8"	681 m	Stagnant water with papyrus
18	3 Dec.	Maridi	Jebel village	N: 4° 65' 39.7" E: 29° 27' 15.2"	684 m	Stagnant water, swampy
19	3 Dec.	Maridi	Munguo village	N: 4° 55' 57.8" E: 29° 27' 9.7"	681 m	Vast papyrus swamp
20	3 Dec.	Maridi	Rice garden site	N: 4° 56' 3.8" E: 29° 27' 13.7"	683 m	Stagnant water and swampy
21	10 Dec.	Mabulindi	Juba main road	N: 4° 56' 3.8" E: 29° 27' 13.7"	710 m	Poor flow
22	10 Dec.	Mabulindi	Araka main bridge	N: 4° 56' 0.0" E: 29° 29' 32.2"	710 m	Extensive papyrus swamp.
23	10 Dec.	Maridi	Maridi 2 village	N: 4° 55' 28.7" E: 29° 27' 30.6"	690 m	Poor flow
24	10 Dec.	Mabulindi	Rumbek bridge	N: 4° 58' 29.4" E: 29° 26' 60.5"	674 m	Sluggish flow
25	10 Dec.	Munguo 1	Yambio road	N: 4° 54' 49.9" E: 29° 26' 21.1"	702 m	Swampy with elephant grass
26	10 Dec.	Munguo 2	Yambio road	N: 4° 54' 57.8" E: 29° 26' 1.3"	704m	Extensive swamp