

## Supporting information

# Larvicidal compounds extracted from *Helicteres velutina* K. Schum (Sterculiaceae) evaluated against *Aedes aegypti* L.

Diégina A. Fernandes <sup>1</sup>, Renata P. C. Barros <sup>1</sup>, Yanna C. F. Teles <sup>2</sup>, Louise H. G. Oliveira <sup>3</sup>,  
Jéssica B. Lima <sup>4</sup>, Marcus T. Scotti <sup>1</sup>, Fabíola C. Nunes <sup>3</sup>, Adilva S. Conceição <sup>4</sup> and Maria de  
Fátima Vanderlei de Souza <sup>1,5,\*</sup>

<sup>1</sup> Post graduation Program in Bioactive Natural and Synthetic Products; Federal University of Paraíba, 58051-900, João Pessoa, PB, Brazil; [diegina@lft.ufpb.br](mailto:diegina@lft.ufpb.br) (D.A.F.); [renatabarros@lft.ufpb.br](mailto:renatabarros@lft.ufpb.br) (R.P.C.B.); [mtscotti@gmail.com](mailto:mtscotti@gmail.com) (M.T.S.); [mfvanderlei@lft.ufpb.br](mailto:mfvanderlei@lft.ufpb.br) (M.F.V.S.)

<sup>2</sup> Department of Chemistry and Physics, Agrarian Sciences Center, Federal University of Paraíba, Areia, PB, Brazil; [yanna@cca.ufpb.br](mailto:yanna@cca.ufpb.br) (Y.C.F.T.)

<sup>3</sup> Biotechnology Center; Federal University of Paraíba, 58051-900, João Pessoa, PB, Brazil; [louiseguimaraes@outlook.com](mailto:louiseguimaraes@outlook.com) (L.H.G.O.); [fabiola@cbiotec.ufpb.br](mailto:fabiola@cbiotec.ufpb.br) (F.C.N.)

<sup>4</sup> Post graduation Program in Plant Biodiversity; University of the State of Bahia; Department of Education, 41150-000, Paulo Afonso, BA, Brazil; [jessica.bl@hotmail.com](mailto:jessica.bl@hotmail.com) (J.B.L); [adilva.souza@gmail.com](mailto:adilva.souza@gmail.com) (A.S.C.)

<sup>5</sup> Post graduation in Development and Technological Innovation in Medicines; Federal University of Paraíba, 58051-900, João Pessoa, PB, Brazil; [mfvanderlei@lft.ufpb.br](mailto:mfvanderlei@lft.ufpb.br) (M.F.V.S.)

\* Correspondence: [mfvanderlei@lft.ufpb.br](mailto:mfvanderlei@lft.ufpb.br); Tel.: +55-83-3216-7351; Fax: +55-83-3216-7351

**Table S1.** Mean of mortality of *A. aegypti* larvae (L4) in the tested concentrations of CEE fractions of *H. velutina*

Fractions	Concentration (mg/mL)	% Mortality ± Standard Deviation	Fractions	Concentration (mg/mL)	% Mortality ± Standard Deviation
Hexane	1.0 <sup>(a)*</sup>	3.0 ± 0.66	n-butanol	1.0 <sup>(h)</sup>	13.0 ± 1.76
	2.5	35.0 ± 1.00		5.0 <sup>(h)</sup>	15.0 ± 1.00
	5.0	96.5 ± 0.33		10.0 <sup>(h)</sup>	16.5 ± 0.88
	10.0	95.0 ± 0.57		15.0 <sup>(h)</sup>	11.5 ± 0.33
	15.0	100.0 ± 0		20.0	81.5 ± 0.88
	20.0	100.0 ± 0		Hydroalcoholic	1.0 <sup>(i)</sup>
Dichloromethane	1.0 <sup>(b)</sup>	23.3 ± 2.18	5.0 <sup>(i)</sup>		0 ± 0
	5.0 <sup>(b)</sup>	23.3 ± 0.66	10.0 <sup>(i)</sup>		1.6 ± 0.57
	7.5 <sup>(c)</sup>	71.5 ± 0.33	15.0 <sup>(i)</sup>		5.0 ± 1.00
	10.0 <sup>(c)(d)</sup>	88.0 ± 0.66	20.0 <sup>(i)</sup>		11.5 ± 0.33
	15.0 <sup>(c)(d)</sup>	81.5 ± 0.88	Negative Control	H <sub>2</sub> O or H <sub>2</sub> O + DMSO 1%	0 ± 0
		(a) (e) (f) (h) (i)			
	20.0 <sup>(d)</sup>	96.5 ± 0.33	Positive Control	Commercial larvicide	100.0 ± 0
Ethyl acetate	1.0 <sup>(e)</sup>	5.0 ± 1.00			
	5.0 <sup>(e)(f)</sup>	13.0 ± 0.33			
	10.0 <sup>(f)(g)</sup>	23.0 ± 0.66			
	15.0 <sup>(g)</sup>	31.5 ± 0.88			
	20.0	65.0 ± 1.15			

(\*) Means followed by the same letter are not significantly different by Tukey test, at 5% of probability.

**Table S2.** Mean of mortality of *A. aegypti* larvae (L4) in different concentrations of tested compounds

Molecule	Concentration (mg/mL)	% Mortality ± Standard Deviation (Triplicate)		
		24h	48h	72h
Tiliroside	0.1 (a)*	0.0 ± 0.5	21.6 ± 1.3	46.6 ± 0.5
	0.25	3.3 ± 0.5	43.3 ± 0.5	70.0 ± 1.0
	0.50 (b) (c)	6.6 ± 1.1	48.3 ± 0.5	83.3 ± 0.5
	0.75 (c) (d)	11.6 ± 0.5	60.0 ± 1.0	100.0 ± 1.0
	1.0 (b) (d) (e)	15.0 ± 1.0	60.0 ± 1.0	100.0 ± 1.0
7,4'-di-O-methyl-8-O-sulphate flavone	0.05	11.6 ± 0.5	20,0 ± 1,0	20,0 ± 1,0
	0.1	43.3 ± 0.5	48.3 ± 1.3	51.6 ± 0.5
	0.25	58.3 ± 1.1	88.3 ± 1.5	100.0 ± 1.0
	0.50	71.6 ± 0.5	93.3 ± 1.5	100.0 ± 1.0
	1.0 (f)	90.0 ± 1.0	100.0 ± 1.0	100.0 ± 1.0
7,4'-di-O-methyl isoscutellarein	1.0	21.6 ± 1.5	21.6 ± 1.5	21.6 ± 1.5
Negative Control	H <sub>2</sub> O + DMSO 1% (a) (e)	0.0 ± 0	0.0 ± 0	0.0 ± 0
Positive Control	Commercial larvicide (b) (c) (f)	100.0 ± 0	-	-

(\*) Means followed by the same letter are not significantly different by Tukey test, at a level of 5% of probability.