Title: Larvicidal effect of the leaf latex of *Aloe yavellana* Reynolds and its major compounds against *Amblyomma variegatum* (Ixodidae)

Authors: Tibebu Hailesillassie, Daniel Bisrat, Kaleab Asres

PII: S0304-4017(18)30335-2
DOI: https://doi.org/10.1016/j.vetpar.2018.09.015
Reference: VETPAR 8756

To appear in: *Veterinary Parasitology*

Received date: 19-7-2018
Revised date: 25-9-2018
Accepted date: 28-9-2018

Please cite this article as: Hailesillassie T, Bisrat D, Asres K, Larvicidal effect of the leaf latex of *Aloe yavellana* Reynolds and its major compounds against *Amblyomma variegatum* (Ixodidae), *Veterinary Parasitology* (2018), https://doi.org/10.1016/j.vetpar.2018.09.015

Larvicidal effect of the leaf latex of *Aloe yavellana* Reynolds and its major compounds against *Amblyomma variegatum* (Ixodidae)

Tibebu Hailesillassie, Daniel Bisrat, Kaleab Asres*

Department of Pharmaceutical Chemistry and Pharmacognosy, School of pharmacy, College of Health Sciences, Addis Ababa University, P. O. Box 1176, Addis Ababa, Ethiopia

*Corresponding author

Email addresses: TH: tibebu.mamuye6@gmail.com, DB: daniel.bisrat@aau.edu.et

KA: kaleab.asres@aau.edu.et; Tel: 251–91144249

Highlights:

- *Aloe yavellana* is traditionally used for the control of cattle ticks
- Larvae packet test indicated the leaf latex possesses genuine acaricidal effect
- Aloin A/B and microdontin A/B contribute to the activity

Abstract

The leaf latex of *Aloe yavellana* Reynolds is traditionally used for the treatment of various illnesses of humans and domestic animals in Ethiopia. In the present study, the latex and two major compounds isolated from it, namely, aloin A/B and microdontin A/B were assessed for their larvicidal activity against *Amblyomma variegatum* tick larvae using a larval packet test (LPT). The LC_{50} and LC_{99} of the latex were found to be 35.82 ± 2.27 and 83.48 ± 3.95 mg/ml,