CURRENT STATUS OF INVASIVE AFRICAN GIANT LAND SNAIL *ACHATINA FULICA* (GASTROPODA: PULMONATA) IN JANAKPUR, NEPAL



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In partial fulfilment of the requirements for the award of the degree of Master of Science in Zoology with special paper Entomology

Submitted to

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Nepal

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TRIBHUVAN UNIVERSITY CENTRAL DEPARTMENT OF ZOOLOGY

Kirtipur, Kathmandu, Nepal

RECOMMENDATION

This is to recommend that the thesis entitled "Current Status of Invasive African Giant Land Snail *Achatina fulica* (Gastropoda: Pulmonata) in Janakpur, Nepal" has been carried out by Mrs. Mitu Jha for the partial fulfilment of Master's Degree of Science in Zoology with special paper Entomology. This is her original work and has been carried out under my supervision. To the best of my knowledge, this thesis work has not been submitted for any other degree in any institutions.

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LETTER OF APPROVAL

On the recommendation of supervisor Dr. Prem Bahadur Budha, this thesis submitted by Mrs. Mitu Jha entitled "Current Status of Invasive African Giant Land Snail *Achatina fulica* (Gastropoda: Pulmonata) in Janakpur, Nepal" is approved for the examination and submitted to the Tribhuvan University in partial fulfilment of the requirements for Master's Degree of Science in Zoology with special paper Entomology.

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DECLARATION

| I hereby do | eclare that t | he wo | rk prese | nted i | in this | s thesis h | as be | een done | by | myself, and h | ıas not | been |
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| submitted | elsewhere | for t | he awai | d of | any | degree. | All | sources | of | information | have | been |
| specifically acknowledged by reference to the author(s) or institution(s). | | | | | | | | | | | | |

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CERTIFICATE OF ACCEPTANCE

This thesis work submitted by Mrs. Mitu Jha entitled "Current Status of Invasive African Giant Land Snail *Achatina fulica* (Gastropoda: Pulmonata) in Janakpur, Nepal" has been accepted as a partial fulfilment for the requirements of Master's Degree of Science in Zoology with special paper Entomology.

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Mitu Jha

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ABSTRACT

Achatina fulica is one of the world's worst invasive species which was introduced in Nepal long ago. In Janakpur, this snail was introduced about 40-45 years ago and currently found in almost everywhere. The direct observation, questionnaire survey was conducted from September to November, 2018. Based on the 195 informants the most preferred habitat in the study area included garden followed bari, roadside, river side, and irrigational canal within urban settlements. About 84 percent respondents (n=170) reported occurrence of this snail in favourable season only but 16 percent respondents said they found it throughout the year. Likewise 70 percent respondents experienced about the impacts on the local environment due to this snail. The control measures of *A. fulica* includes collections and pouring salt over the snails, curshing the live individuals, remove the hiding places and searching egg mass and destroy them. Collection and pouring salt over the snail was found the most effective control techniques adopted by the local people.

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PHOTO PLATE