



Population Density and Damage of Invasive Giant African Snail *Achatina fulica* in Organic Farm in East Sikkim, India

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Abstract: Sikkim Himalayan traditional agriculture system is one of the 22 agrobiodiversity hotspots of India which is reeling under serious climate change impacts and invasive species. The invasive Giant African snail, *Achatina fulica* is one of the world's largest and most damaging land snail pests, which has appeared in the agricultural fields of Sikkim, an organically farming Himalayan state of India. Therefore, a study was undertaken in an organic farm at Pendam in East Sikkim to estimate the density of *Achatina fulica* and the extent of damage to agriculture crops. A total of 500 individuals (density of 0.33 individuals per m²) of snail were recorded from the study area. The invasion of *Achatina fulica* in Pendam occurred during the year 2000-2001 which appears in the farms during end of May and continues till October coinciding with the growing of majority of crops. Economic losses estimated based on the comparison of income generated from agricultural products between pre- and post- snail invasion showed 56.82 per cent loss.

Keywords: Economic loss, Giant African snail, Invasive species, Sikkim, Traditional agriculture
