



## *Gloriosa superba* L. –Critically endangered plant of Sikkim

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### Abstract

*Gloriosa superba* L. is the medicinal plant of Sikkim that is critically endangered plant of Sikkim and it is found that the species is losing its natural habitat in Melli and Kitam Forest Range of Sikkim.

**Keywords:** *Gloriosa superba*, Melli Forest Range, Sikkim Himalaya

### Introduction

The southern part of Sikkim is the habitat for *Gloriosa superba* L. Due to many developmental activities as well as scrupulous extraction, the species is posing threat. Presently, the population of *Gloriosa superba* L. has been decreased in the recent time in the wild habitat of Southern part of Sikkim. Besides these habitats, there is no record of natural habitat of the species.

*Gloriosa superba* L. was one of the species that is exported from Sikkim from early twentieth century from the nurseries of Kalimpong and Sikkim.

During the field study, it was reported that the species was exploited from the natural sources since the beginning of twenty first century as a result the species in natural habitat has been rapidly decreasing. In view of this, the study was undertaken to analysis *Gloriosa superba* L. in Sikkim.

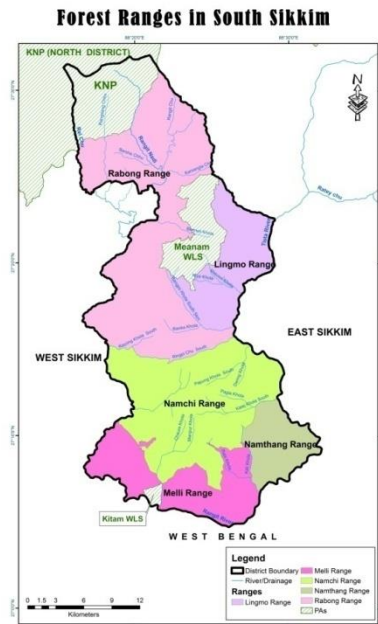
### Materials and Methods

Transect walk conducted in the Melli Forest Range and Kitam Reserve Forest of Sikkim. The population of species evaluated using the quadrat.

The primary data of *Gloriosa superba* L. was obtained through rapid survey in the prescribed format. And several literatures were referred to study on the Sikkim biodiversity in reference to *Gloriosa superba* L. (Hara, 1966, 1971; Hooker, 1872-1897; Hooker and Thomson, 1855; Ohashi, 1975).

### Results and Discussion

The species was studied doing the transect walk and found that the population of the species was not in abundance. The forests of Melli range and Kitam Forest Range of Sikkim have some sparsely



***Gloriosa superba* L. -Critically endangered plant of Sikkim**

distribution of the species. The specimen found in the Melli and Kitam ranges was compared with the authentic specimen and confirmed its identify.

Remarkably, this species has been under the cultivation in the Sikkim Himalaya in the private holdings (HCCD, 2009). It was funded by the National Horticulture Mission in Sikkim. Since then these species are in cultivation and playing a pivotal economic role in Sikkim.

**Table 1:** Tabulation of the production of *Gloriosa superba* L. in Turuk-Melli Range, Sikkim

Year	Turuk-Melli Range [Production (Ton)]	Year	Turuk-Melli Range [Production (Ton)]
2009-2010	25	2016-2017	2
2010-2011	24	2017-2018	2.5
2011-2012	36	2018-2019	2
2012-2013	20	2019-2020	2.3
2013-2014	21	2020-2021	3
2014-2015	15	2021-2022	3
2015-2016	15		

### Conclusion

The study confirmed that the specimen, *Gloriosa superba* L. was in the natural habitat of Sikkim but the species has been found as critically endangered species in Sikkim. Even though, the species are under the cultivation site, the species requires the forest management for the expansion activities adopting both *in situ* and *ex situ* conservations.

### Acknowledgements

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