of Madras of his time ; K.C.S.I. in 1902 ; and died on Oct. 29, 1903.

ACKNOWLEDGEMENTS

This article would not have been possible without the help of Smt. C. P. Malathi and Sri R. Chandrasekaran of the Madras Herbarium and Sri K. P. Vijaykumar, Assistant Librarian, Tropical Botanic Garden and Research Institute, Trivandrum, and the staff of the Kerala University Library, Trivandrum, with concerned old records and literature.

VATSAVAYA S. RAJU*

Botanical Survey of India, Coimbatore

*Present address : Department of Botany, Kakatiya University, Warangal-506009, India.

CATAMIXIS BACCHAROIDES THOMS.—AN ENDEMIC CHASMOPHYTE OF THE W. HIMALAYA UNDER THREAT

The genus *Catamixis* is monotypic : its component species (*C. baccharoides* Thoms.) is endemic to the Western Himalaya, confined to the narrow range in the Siwalik belt and Tehri district of Garhwal. This rare plant could well be on the verge of extinction by the turn of this century, threatened by indiscriminate mining and quarrying operations being carried out in its natural range of distribution.

The early Tertiary zone of the outer Siwalik that surrounds the tectonic Siwalik and Palaeocene belt, has deposits of Eocene coal and bauxite. The aljoining Tehri district from which *C. baccharoides* was recently reported (Bhattacharyya et Goel, 1982) abounds in mineral deposits of gypsum, limestone and phosphorite.

Besides mining and quarrying the concommittant 'natural' (?) loose topsoil—contribute to the overall destruction of the natural habitat of *C. baccharoides*.

The plant is a chasmophyte adapted to a specialised and isolated habitat ; the almost vertical calcareous/limestone cliffs of the Siwalik and Garhwal Himalaya. The life-form of *Catamixis*—a sclerophyllous undershrub—is a morphological adaptation warranted by the semi-arid conditions of these high altitude calcareous cliffs.

The ecology, including the climatic (average monsoon rainfall *ca.* 140 cm), edaphic and biotic factors support the existence of this very interesting plant. Thus the survival of this extinction-prone endemic species in such an ecological zone rests critically balanced on certain biotic and edaphic parameters and any imbalance, whatsoever, could pose a grave threat to its very existence.

An intensive and thorough exploration should help locate this plant in some more pockets or niches. Population studies should be conducted for an indepth investigation of its biology/phenology. The plant flowers and sets fruit between the months of March and May. The flowers—whitish, pale yellow heads—remain in bloom for a very short period, not exceeding a fortnight.

Conservation measures to protect this botanically interesting plant are urgently called for. To start with, it is necessary to monitor or identity specific areas having sufficiently large, viable and self-sustaining populations of this species, so that steps can be taken at the proper level to keep such areas free from mining and quarrying operations.

M. P. NAYAR AND M. AHMEDULLAH

Botanical Survey of India, Calcutta

REFERENCES

BHATTACHARYYA, U. C. AND A. K. GOEL. Report on Rare or unknown plants of Garhwal Himalaya. 35. 1982.

JAIN S. K. AND A. R. K. SASTRY. Threatened plants of India : A state-of-Art-Report. 18. 1980.