

# Review of: "An Ecological Study of *Alstonia Venenata* R.Br. (Apocynaceae: Rauvolfioideae) and *Cryptolepis Buchanani* R.Br. Ex Roem. & Schult. (Apocynaceae: Periplocoideae)"

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Potential competing interests: No potential competing interests to declare.

**Title:** An ecological study of *Alstonia venenata* R.Br. (Apocynaceae: Ravolfioideae) and *Cryptolepis buchanani* R.Br. Ex Roem. & Schult. (Apocynaceae: Periplocoideae)

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**Article Type:** Research Article

**The objectives:** The information available on *Alstonia venenata* and *Cryptolepis buchanani* is very fragmentary concerning the floral biology, pollination, and fruit aspects, and hence the present study attempted to provide additional information on these aspects based on field studies.

## Summary of the work:

*Alstonia venenata* and *Cryptolepis buchanani* belong to the Apocynaceae family. The two species with shrubby habits occupy different locations, but both bloom during the summer season. *A. venenata* flowers are milky white and very prominent during the forenoon period. The relative positions of floral sex organs facilitate the occurrence of autonomous autogamy. Butterflies and honey bees visit the flowers during the forenoon period only when the former collect nectar while the latter collect pollen, but both act as pollinators. The fruit production rate in this species is a result of autonomous autogamy and vector-mediated self- and cross-pollination. *C. buchanani* flowers are greenish-yellow, nectariferous, and unattractive to the flower visitors present in that area. The low fruit production rate in this species is exclusively a result of autonomous autogamy. Fruit is a paired follicle in both plant species, and each follicle produces several to numerous seeds according to the production rate of ovules in flowers. Follicles shed seeds when dry, and the seeds thus liberated are dispersed by wind, hence both *A. venenata* and *C. buchanani* are anemochorous.

## Comments:

1. The title, objectives, and content of the article did not match. Authors must have focused on presenting precise and updated information for conducting a descriptive study.
2. The title must be corrected to 'An ecological study of *Alstonia venenata* R.Br. (Apocynaceae: Rauvolfioideae) and *Cryptolepis buchanani* R.Br. Ex Roem. &Schult. (Apocynaceae: Periplocoideae)'.

3. It is a descriptive study in ecology. The authors selected two different species from different tribes/subfamilies of the Apocynaceae family. Their habits are the same, and their locations are different, but both bloom during the summer season. The parameters like floral biology, pollinators, autonomous autogamy, and fruit/seed set were described for the two species. Differently. Neither was compared nor differentiated in terms of the selected parameters.
4. Introduction: drafted poorly without a review of recent literature and a basis for the chosen objective.
5. In my opinion, taxonomic, ecological, and other species-related studies required voucher specimens with coordinates. Not represented in the text.
6. The observations and discussion part had many typographical errors and spelling mistakes.
7. The conclusion and abstract both are the same; they need improvement.

**Decision: Major revision**