

SYNTHESIS REVIEWS EMREF 2026, Alain Chautems

Four applications were received for this 2026 edition. For the first time, a total amount of 8'744,39\$ was requested, *i.e.* higher than the available 6'000\$. Besides reviewing diverse aspects of the proposals, the EMREF committee members were asked to rank the applications. The respective ranks were compiled as in previous years, as follow: First rank received 4 points, Second rank 3, Third rank 2 and Fourth rank 1 points. Michael Moeller refrained from evaluating Vahidha Parveen's application because of personal involvement in the project. Following this procedure, the global ranking is:

Ana Maria Benavides	12 points
Clarice Moreira Dias de Abreu	11 points
Matheus Felipe Ferreira da Silva	11 points
Vahidha Parveen	6 points

Results are quite clear, having three proposals obtaining very close evaluations and one well behind (even if Moeller had given 4 points). In this situation, my recommendation is to eliminate one proposal and split the 6'000\$ in three equal amounts of 2'000\$.

I hope that this decision best reflects the opinion of the Committee members and I thank them for their precious collaboration.

In the letter of approval of the respective applications, I suggest the inclusion of some of the comments done by the reviewer. They may contribute to the improvement of the project.

Ana María Benavides 2'000\$ (2'000\$ were requested)

Title of Project: Environmental and Substrate Effects on Vegetative Propagation Success of Three *Columnnea* Species (Gesneriaceae) from the Western Cordillera of Colombia

Institution: Jardín Botánico de Medellín,

Address: Cra 52 # 73-298, Medellín, Antioquia, Colombia, **Telephone:** +57 3013988698,

Email: anamaria.benavides@jbotanico.org

This is an interesting project on the propagation of facultative epiphytic species, though with limited details as to the parameters to be used / applied for the propagation experiments which has cost implications, though for the laboratory experiments only matching funds seem to be counted on; funds applied here for are mostly for field work and travel (>50%). It seems leaf cuttings work as well in *Columnnea* as stem cuttings... which are as in most gesners rather straightforward to propagate.

C. rubropilosa seems a common and locally abundant species in Colombia and assessed as Least Concern in the protologue (Clark et al. 2025). I could not find much on the other species. I am not sure of the distribution of those species, but would it be worthwhile to do the species IUCN assessment at species-level rather than in the reserve alone?

It seems more important to establish first the threat-levels of the species as a whole, then threat levels in the reserve, and then embark on investigating the propagation requirements

for threatened species, rather than do this all in parallel. This would allow a more targeted and relevant approach.

Clarice Moreira Dias de Abreu – 2'000\$ (1'807 were requested)

Title of project: Evolutionary Dynamics of *Sinningia insularis*: Insights from Habitats in Brazil

Institution: Herbário SORO, Universidade Federal de São Carlos – Campus Sorocaba, Rodovia João Leme dos Santos, Km 110, SP-264, Bairro Itinga, CEP 18052-780, Sorocaba, SP, Brazil

Telephone: +55 15 99726-6881

Email : abreuclarice@estudante.ufscar.br

This is a hard proposal to evaluate throwing in island biogeography and selection with climate and environmental change, which is not explained how it would have been approached to be studied as a parameter here, heavy on terminology, with conceptual weaknesses. I am sceptical whether the funds requested for the genetic analyses of \$731.40 would cover the proposed work, though I am quite unclear what will be done here as no detail is given...

There are some references missing in the list (e.g. Franklin et al., 2016, Westoby 2022) that does not allow checking the experimental background of the proposed study here.

It sounds like a straightforward population genetics study of an island species compared to a mainland species with rather predictable outcomes of less gene flow on the island...

As to the mainland species chosen for comparison *S. leucotricha* and *S. douglasii* these are not closely related to *S. insularis*, but sister to it is *S. striata*, according to the comprehensive study by Perret et al (2013). How evolutionary shifts (adaptive divergence) to be studied with unrelated species is unclear.

There are also no mentioning of the number of populations sampled, plants per population sampled (population level sampling is usually a minimum of 30 plants per population) or marker acquisition (genomic, iSSRs, or single locus marker like ITS, rps16?), neither of their analysis. Or how data of functional traits like vegetative and floral characters, including plant height, leaf area, seed mass, and corolla dimensions will be gathered (unlikely possible to collect all in one visit; fixed material?). Pollinators are a great part of reproductive strategies and particularly important in island settings but are not mentioned.

A robust phylogenetic framework was to be constructed from the newly sampled material, though this has been achieved by Perret et al. (2013) already who included all four *Sinningia* species I mentioned here. Thus, it is unclear where the novelty factor in this aspect lies.

It is bit of a mix between rather generic text (interspersed with heavy jargon) with without specifics and a very detailed description of the species *S. insularis*.

Sequence editing and phylogenetic analysis software is often freely available.

The cost calculation is very detailed (except the molecular part) but in parts confusing where distances are concerned.

I would fully agree to have a second person involved simply from a safety point of view.

Matheus Felipe Ferreira da Silva - -2'000\$ (2'937,39\$ were requested)

Title of project: The family Gesneriaceae Rich. & Juss. in the states of Mato Grosso and Mato Grosso do Sul, Brazil.

Institution: Herbário SORO, Universidade Federal de São Carlos – Campus Sorocaba, Rodovia João Leme dos Santos, Km 110, SP-264, Bairro Itinga, CEP 18052-780, Sorocaba, SP, Brazil.

Telephone: +55 15 99112-8375

E-mail: matheus.ferreira.bio@gmail.com

A pricy proposal for 14 days fieldwork in Mato Grosso and Mato Grosso do Sul. It seems quite a risky proposal to visit locations where no gesners were collected before, which is exciting though risky when none are found...

This requires quite strategic planning and visiting herbaria is a prudent start before fieldwork. Are there herbaria online outside Brazil that should be consulted?

A useful paper regarding herbarium collections would be:

Campos EP, MG Bovini, AL Peixoto 2021. The flora of south-eastern Mato Grosso State (Brazil): a review of herbarium collections. Biodiversity Data Journal 9: e72907. doi: 10.3897/BDJ.9.e72907

For up-to-date species/genus numbers it would be best to consult GRC (<https://padme.rbge.org.uk/grc/welcome>).

I am not sure of the purpose of the proposed descriptions of the family and genera.

It is not always clear what the areas are the applicant refers to; is it always the Pantanal area of MT and MS? E.g. IUCN assessment are envisaged for the species in the two states; but are all species endemic to the two states or are these state-level assessments which are not that useful when species distribution is wider (please note, I am unfamiliar with endemism in subfam. Gesnerioideae);

The cost for silica-gel is explained 'for removing moisture from delicate samples', which I take as for the collection of leaf material for DNA analyses which are not mentioned, though I may be ignorant of the use of silica-gel here...

Overall, an interesting though risky(?) proposal.

Vahidha Parveen A not funded (2'000 \$ were requested)

Title of project: Seedling Development, Meristem Organization, and Tuber Formation in *Henckelia pradeepiana* Nampy et al. (Gesneriaceae)

Institution: Department of Botany, University of Calicut, Malappuram District, Kerala, India- 673635

Mob: +917994119579;

E-mail: vaheedabdul778@gmail.com