

Review Form 3

Journal Name:	Asian Journal of Environment & Ecology
Manuscript Number:	Ms_AJEE_129680
Title of the Manuscript:	Ornamental plants of Bignoniaceae family: Source of bioactive compounds with therapeutic applications
Type of the Article	Short Communication (Review)

General guidelines for the Peer Review process:

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART: 1

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript provides a valuable overview of the medicinal potential of ornamental plants within the Bignoniaceae family. By highlighting their pharmacological properties and the presence of bioactive compounds, it encourages further research into these underutilized natural resources. This information can guide future studies on drug discovery and development, potentially leading to the identification of novel therapeutic agents. Furthermore, this review emphasises the importance of sustainable agriculture and horticulture in utilizing these plants, promoting a more holistic approach to both human health and environmental conservation.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes, the title "Ornamental plants of Bignoniaceae family: Source of bioactive compounds with therapeutic applications" is suitable. The title clearly states: The subject of the review: Ornamental plants of the Bignoniaceae family. They are a source of bioactive compounds and the compounds present in these plants have potential therapeutic applications.	

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<p>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</p>	<p>The provided abstract is a good start, but it could be made more comprehensive. Here are some suggestions to add in the abstract: Explicitly state the scope of the review: For example, "This review focuses on selected ornamental plants of the Bignoniaceae family..." Mention specific pharmacological activities: Instead of just listing "antimicrobial, anti-inflammatory, and antioxidant properties," mention specific examples like "antibacterial, antifungal, anti-viral, anti-parasitic, anti-diabetic, anti-cancer." Highlight the potential for drug development: Emphasize the potential for isolating and characterizing bioactive compounds for the development of novel pharmaceuticals. Briefly mention sustainability aspects: Briefly touch upon the potential for sustainable cultivation and utilization of these plants. Delete the phrase "This review aims to provide a comprehensive overview of the ornamental plants of the Bignoniaceae family and their potential uses in medicine and beyond." This is somewhat redundant as the entire abstract aims to achieve this.</p>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>The provided manuscript appears to be scientifically sound in its general overview. Here are some positive points: Accurate Information: The information presented about the Bignoniaceae family, its ornamental species, and the presence of bioactive compounds aligns with existing scientific literature. Focus on Key Aspects: The manuscript correctly highlights important aspects like the presence of alkaloids, flavonoids, and phenolic acids, and their potential pharmacological activities. Emphasis on Future Research: The manuscript appropriately emphasizes the need for further research into the isolation, characterization, and mechanisms of action of these bioactive compounds. Potential Areas for Improvement: Specificity: While the manuscript mentions "antimicrobial, anti-inflammatory, and antioxidant properties," it would benefit from specifying the types of microorganisms inhibited, the specific inflammatory pathways affected, and the mechanisms of antioxidant action. Evidence-Based Support: While the manuscript states that certain species possess specific medicinal uses, it would be crucial to provide specific citations for these claims. For example, instead of simply stating "Medicinal uses: Antimicrobial, anti-inflammatory, and antioxidant properties," it should cite specific studies that have demonstrated these effects. Depth of Analysis: The manuscript could be strengthened by delving deeper into the specific mechanisms of action of the bioactive compounds. For example, how do flavonoids exert their antioxidant effects? How do alkaloids inhibit microbial growth? Discussion of Limitations: A brief discussion of the limitations of current research would enhance the scientific rigor of the manuscript. For example, acknowledging the limited clinical data available for many of these species or the need for more in-depth studies on their safety and efficacy. Overall: The manuscript provides a good foundation for a comprehensive review of the medicinal potential of ornamental Bignoniaceae species. By incorporating the suggestions above, the authors can significantly enhance the scientific accuracy and depth of their work.</p>	
<p>Are the references sufficient and recent? If you have suggestions for additional references, please mention them in the review form.</p>	<p>The provided reference list appears to have a reasonable number of sources, but it could be further improved by: Including more recent publications: The current list includes some older references. Incorporating more recent research articles (within the last 5-10 years) would strengthen the review's relevance and provide readers with the most up-to-date information. Broadening the search: The list could benefit from including more comprehensive reviews on the Bignoniaceae family or specific species within the family. Adding relevant databases: Consider including references from specialized databases such as PubMed, Scopus, Web of Science, and Google Scholar. For example: 1. Kalaivani, T., Kanagam, N., & Rajasekaran, C. (2025). Traditional and Pharmacological Values of <i>Oroxylum indicum</i>. In <i>Bioprospecting of Ethnomedicinal Plant Resources</i> (pp. 297-310). Apple Academic Press. 2. Torres-Montúfar, A., & Jiménez-Noriega, M. S. (2025). From miracle medicine to fuel: Uses of the multifaceted genus <i>Randia</i> (Rubiaceae) in Mexico. <i>Boletín Latinoamericano y del Caribe de Plantas Medicinales y Aromáticas</i>, 24(2), 186-198.</p>	

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	<p>3. Ravikumara, K., Kaveri, T. M., Harishkumar, J., & Umesha, S. (2024). Bignonia magnifica: a comprehensive exploration of its morphology, phytochemistry, pharmacology and therapeutic potential. <i>Vegetos</i>, 1-16.</p> <p>4. Nkumah, A. O., Kehinde, C. T., Oluremi, B. B., Attah, A. F., & Ogbole, O. O. (2024). Peptide-rich extracts from leaves of <i>Newbouldia laevis</i> (P. Beauv.) Seem. ex. Bureau (Bignoniaceae) with antimicrobial and brine shrimp lethality activities. <i>Journal of Pharmacy & Bioresources</i>, 21(2), 87-96.</p> <p>By incorporating these suggestions, the authors can significantly enhance the breadth and depth of their reference list, providing readers with a more comprehensive and up-to-date understanding of the medicinal potential of ornamental Bignoniaceae plants.</p>	
Is the language/English quality of the article suitable for scholarly communications?	The language quality of the provided manuscript is generally good, but there are areas for improvement to ensure it meets the standards of scholarly communication. Minor grammatical errors and punctuation issues may need to be addressed.	
Optional/General comments		

PART 2:

	Reviewer's comment	Author's comment (if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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