

REVIEWER'S REPORT

Manuscript No.: **IJAR-55353**

TITLE: How do urban and natural flora differ in supporting biodiversity, human physical and mental health in Senegal?

Recommendation:

Accept as it is

✓ **Accept after minor revision.....**

Accept after major revision

Do not accept (*Reasons below*)

| Rating | Excel. | Good | Fair | Poor |
|----------------|--------|------|------|------|
| Originality | | ✓ | | |
| Techn. Quality | | ✓ | | |
| Clarity | | | ✓ | |
| Significance | | | ✓ | |

Reviewer Name: **Dr. Anam Zehra**

Reviewer's Comment for Publication:

The manuscript offers a valuable, context-specific comparison of urban and natural flora in Senegal and usefully links biodiversity patterns to perceived ecosystem and health-related services. However, direct comparisons are weakened by non-equivalent sampling designs, and the health claims rely largely on perceptions and use reports rather than validated outcome measures. Substantial revision is needed to clarify methods, strengthen analytic reporting, and qualify conclusions accordingly.

Recommendation: Accept after Minor Revision

Detailed Reviewer's Report

Strengths

1. Clear comparative purpose and relevance

The manuscript poses an intelligible question—how urban versus natural flora differ in biodiversity support and in contributions to physical/mental health—and grounds it in a real management need for Senegal.

2. Integrated ecological and socio-economic framing

Combining floristic inventories with community-use/health-perception data strengthens the “ecosystem services” narrative and increases applied value.

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3. **Concrete, site-specific fieldwork**

The study uses defined sites (a classified forest and an urban municipality) and provides a structured approach to data collection rather than remaining purely conceptual.

4. **Multiple biodiversity dimensions addressed**

The paper goes beyond species counts to include composition, structure (DBH/height patterns), and conservation status, which improves ecological interpretability.

5. **Action-oriented conclusion**

Findings are translated into clear management implications (ecosystem-specific strategies, urgent urban protection for threatened species, and attention to exotic species in natural forests).

Weaknesses

1. **Comparability of sampling designs is a major concern**

Natural forest and urban inventories rely on different methods and effort structures; this complicates direct comparisons of richness/diversity and may bias conclusions about “more/less diverse” systems.

2. **Statistical reporting and analytic logic need tightening**

The manuscript references multiple tests (e.g., ANOVA and nonparametric approaches) without a clear decision pathway, assumptions checks, or transparent reporting of what was tested, on which data structures, and why.

3. **Health outcomes are largely inferential**

Mental-health contributions are based on perceptions and activity motivations rather than validated psychological instruments; physical-health contributions are primarily medicinal-use listings rather than measured health outcomes.

4. **Potential bias in “indigenous/exotic” determinations**

Urban “indigenous presence” is partly based on visual observation of selected landmarks/streets, which risks convenience bias and may not represent municipality-wide patterns.

5. **Presentation quality needs editorial improvement**

There are visible language and formatting issues (spacing, phrasing consistency, occasional awkward construction) that reduce readability and perceived rigor; tighter structure and clearer variable definitions would strengthen the submission.