

REVIEWER'S REPORT

Manuscript No.: IJAR-59087

Title: ASSESSMENT OF ANGIOSPERM FLORA AT DUPCHACHIA UPAZILA OF BOGURA DISTRICT, BANGLADESH FOCUSING ON IMPORTANT MEDICINAL PLANTS,

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision ...YES.....

Do not accept (*Reasons below*)

Rating	Excel.	Good	Fair	Poor
Originality		☐		
Techn. Quality			☐	
Clarity			☐	
Significance		☐		

Reviewer's ID: JPR-094

Detailed Reviewer's Report

Reviewer's Report

1. Overall Assessment

The manuscript entitled "Assessment of Angiosperm Flora at Dupchanchia Upazila of Bogura District, Bangladesh Focusing on Important Medicinal Plants" presents a floristic inventory of angiosperms documented from Dupchanchia Upazila, Bogura District, Bangladesh. The authors report **202 species belonging to 157 genera and 64 families**, together with information on habit, abundance, occurrence status, voucher specimens, and 65 medicinally used species.

The study addresses a potentially useful regional knowledge gap and could provide baseline information for future botanical, ecological, conservation, and ethnobotanical investigations. However, the manuscript in its present form requires **substantial revision**. There are several inconsistencies in the study period, family percentages, taxonomy/nomenclature, voucher numbering, species classification, methodology, and interpretation of medicinal uses.

2. Strengths of the Manuscript

Relevant regional floristic study

The survey focuses on Dupchanchia Upazila, an area for which the authors claim comprehensive floristic documentation is limited.

Reasonably large species inventory

Documentation of **202 angiosperm species representing 64 families** provides potentially useful baseline information.

Field-based investigation

The manuscript reports repeated field visits and collection of specimens from different habitats, rather than relying exclusively on literature records.

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Voucher specimen documentation

Preservation of voucher specimens at the Herbarium of Rajshahi University is a positive feature and could strengthen the reliability of species identification, provided voucher numbers and specimens are properly cross-checked.

Seasonal coverage

The authors attempted repeated visits to capture seasonal variation and flowering/fruitletting periods.

Medicinal-plant component

Documentation of **65 medicinally used species** adds an ethnobotanical dimension to the floristic inventory.

Local knowledge component

Interviews with 68 informants potentially provide valuable information concerning traditional plant use.

Useful tabulation

The tables provide botanical names, local names, families, habits, abundance, occurrence status, phenology, and voucher numbers, which could be valuable to future researchers after verification.

3. Major Weaknesses

A. Important numerical errors

This is one of the most serious problems.

The manuscript states that there are **202 species**, but Table 7 gives incorrect percentages.

For example:

- Asteraceae: $18/202 \times 100 = 8.91\%$, not 17.82%.
- Fabaceae: $16/202 \times 100 = 7.92\%$, not 15.84%.
- Cucurbitaceae: $13/202 \times 100 = 6.44\%$, not 12.87%.
- Amaranthaceae: $11/202 \times 100 = 5.45\%$, not 10.89%.
- Apocynaceae: $9/202 \times 100 = 4.46\%$, not 8.91%.
- Solanaceae: $8/202 \times 100 = 3.96\%$, not 7.92%.

The percentages in Table 7 appear to have been approximately **doubled**.

Recommendation: Recalculate the entire table and corresponding text/figure.

B. Study-period inconsistency

Three different descriptions are given:

- Abstract: **December 2024–December 2025**
- Materials and Methods: **July 2024–December 2025**

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- Conclusion: **July 2024–December 2025**, described as an **18-month** period.

The Results section again describes the work as a **twelve-month period from December 2024 to December 2025**.

This must be corrected throughout the manuscript.

Recommendation: State one verified study period consistently in the Abstract, Methods, Results, Discussion and Conclusion.

C. Taxonomic identification requires extensive checking

There are numerous apparent spelling and nomenclatural problems, including examples such as:

- *Helianthus annuus* → **Helianthus annuus**
- *Chrysanthemum coronarium* → **Chrysanthemum coronarium**
- *Cleosia argentea* → **Celosia argentea**
- *Artocurpus lacucha* → **Artocarpus lacucha**
- *Mormordica dioica* → **Momordica dioica**
- *Clitoria tarnetea* → **Clitoria ternatea**
- *Carissa carandus* → **Carissa carandas**
- *Cinnamomum Verum* → should be checked for accepted nomenclature and formatting
- *Oleaceac* → **Oleaceae**
- *Mussaceae* → **Musaceae**
- *Cucurbitacea* → **Cucurbitaceae**

There are also apparent problems with some family assignments and outdated names.

Recommendation: The complete species list should be checked against a current authoritative taxonomic database/herbarium determination before publication.

D. Some habit classifications appear questionable

Several classifications require verification. For example:

- *Musa paradisiaca* is classified as a shrub.
- *Oxalis corniculata* is listed as a tree in the medicinal table, whereas elsewhere it is treated as a herb.
- *Cucurbita maxima* has inconsistent habit notation.
- *Bambusa vulgaris* is classified as a tree in Table 2, although botanically it is a grass.
- *Solanum tuberosum* is called a shrub in the medicinal table but herbaceous in Table 2.

These inconsistencies reduce confidence in the dataset.

Recommendation: Reconcile the habit classification across **Tables 1, 2, 3 and 4**.

E. Voucher numbers require verification

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There are suspicious duplicate or inconsistent voucher numbers. For example:

- RB21 appears associated with more than one species.
- RB103 appears more than once.
- RB157 appears more than once.
- RB120 appears more than once.
- RB135 appears more than once.
- RB159 appears more than once.
- RB07 appears more than once.

If every species has a unique voucher specimen, each voucher number should be traceable to one specimen/accession.

Recommendation: The authors should provide a verified voucher-number/specimen register and correct all duplicates unless the duplicates have a documented explanation.

F. Methodology is insufficiently detailed

The manuscript states that 68 informants were interviewed, but it does not adequately explain:

- how informants were selected;
- the number of traditional healers versus general residents;
- gender distribution;
- villages covered;
- informed consent procedures;
- questionnaire structure;
- how medicinal-use information was verified;
- whether repeated reports were distinguished from single reports;
- how abundance categories were quantitatively determined.

The statement that abundance was determined by “**visual estimation**” is particularly weak for a scientific floristic assessment.

Recommendation: Provide a clear sampling protocol and operational definitions for abundance categories.

G. Ethnobotanical claims need stronger evidence

The medicinal table provides statements such as plants being used for diabetes, hypertension, liver detoxification, cholesterol reduction, etc. These are potentially important claims, but the manuscript does not adequately distinguish:

1. **local traditional use**, and

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2. scientifically established pharmacological efficacy.

For example, statements such as “lowers blood pressure” or “helps control diabetes” should not be presented as established therapeutic effects solely on the basis of local interviews.

Recommendation: Phrase these as “**traditionally used by local informants for...**” and provide appropriate ethnobotanical/pharmacological references where available.

H. “37 ailments” is not adequately demonstrated

The conclusion states that 65 medicinal species were used for **37 different ailments/health conditions**, but the manuscript does not clearly provide a systematic classification or count demonstrating the 37 categories.

Recommendation: Add an ailment/use-category table or explain exactly how the number 37 was calculated.

I. Novelty statement is too absolute

The sentence:

“No published information recorded on the diversity of angiosperm flora at Dupchanchia Upazila...”

is too categorical.

My web search did **not identify an exact previously published paper matching this title/dataset**, but absence from indexed search results cannot prove that no local, unpublished, accepted, repository, or poorly indexed study exists.

A safer wording would be:

“To the best of our knowledge, no previous comprehensive floristic survey of the angiosperm flora of Dupchanchia Upazila, Bogura District, Bangladesh, has been published.”

This is much more appropriate for a scientific manuscript.

4. Key Points Requiring Attention

Issue	Reviewer assessment	Required action
202 species/64 families	Potentially valuable	Verify complete inventory
157 genera	Important result	Recalculate after taxonomic correction
65 medicinal species	Useful	Verify medicinal-use evidence
Study period	Inconsistent	Correct throughout
Table 7 percentages	Incorrect	Recalculate
Taxonomic names	Several errors	Expert taxonomic verification
Habit classification	Inconsistent	Reconcile tables

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Issue	Reviewer assessment	Required action
Voucher numbers	Possible duplicates	Verify herbarium records
Informant methodology	Insufficient	Describe sampling/ethics
Abundance assessment	Subjective	Define categories clearly
Medicinal claims	Overstated in places	Separate traditional use from proven efficacy
Figures	Dependent on tables	Regenerate after correcting data
Literature review	Adequate in quantity but dated	Add recent relevant literature
Novelty claim	Too strong	Use cautious wording

5. Significance of the Study

The **potential significance is moderate to good** if the dataset is authentic and taxonomically validated.

The study could provide:

- a baseline checklist of angiosperms in Dupchanchia Upazila;
- documentation of locally cultivated and wild plant resources;
- information useful for regional biodiversity monitoring;
- preliminary documentation of traditional medicinal plant use;
- a reference point for future ecological and conservation studies.

However, the current manuscript is primarily a **floristic inventory** rather than a rigorous ecological or quantitative ethnobotanical study. Therefore, the authors should avoid making claims that extend beyond the actual data.

6. Originality/Novelty Assessment

Preliminary assessment: Potentially original, but novelty requires cautious wording.

I searched combinations of the exact title, study area, species count, angiosperm-flora terminology, and medicinal-plant component. I did **not find an exact indexed publication corresponding to this manuscript**. This supports the possibility that the Dupchanchia dataset is new, but it does not establish absolute proof that the work has never appeared in a local journal, repository, conference proceeding, or other non-indexed source.

The manuscript also follows a format and terminology similar to previous Bangladesh floristic studies, particularly the works cited in the manuscript. This is not by itself evidence of plagiarism, but the authors should ensure that all text is original and appropriately cited.

7. Scientific Quality

Positive aspects

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- Field collection was undertaken.
- Voucher specimens are mentioned.
- Multiple habitats were surveyed.
- Seasonal variation was considered.
- A relatively large plant inventory is presented.

Concerns

- Taxonomic verification is incomplete.
- Quantitative calculations contain errors.
- Sampling methodology is insufficiently described.
- Abundance classification is subjective.
- Ethnobotanical methodology is inadequate.
- Some plant-use claims appear stronger than the evidence presented.

Therefore, the scientific quality is **promising but presently insufficient for acceptance without major correction**.

8. Recommendation to the Editor

Recommendation: MAJOR REVISION

I would **not recommend acceptance in the present form**. However, I would also **not recommend outright rejection solely on the basis of the current problems**, because the underlying field dataset could be useful if it is genuine and properly validated.

Suggested editorial decision:

Major Revision / Re-review

The authors should be asked to:

- Correct all numerical calculations.
- Resolve the study-period discrepancy.
- Completely verify botanical nomenclature.
- Correct family and habit classifications.
- Verify every voucher number against herbarium records.
- Recalculate family and habit percentages.
- Improve the field-sampling methodology.
- Explain informant selection and ethnobotanical procedures.
- Distinguish traditional medicinal use from scientifically established therapeutic effects.
- Provide evidence for the stated 37 ailments.
- Correct all spelling, grammar and formatting problems.
- Update the literature review.
- Rewrite the novelty statement cautiously.

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- Recheck all tables and figures after the corrections.
- Have the final species inventory reviewed by a qualified taxonomist.

9. Reviewer Rating

Criterion	Assessment
Originality	Good / potentially original
Scientific significance	Good
Technical quality	Fair
Methodology	Fair
Data presentation	Fair
Taxonomic accuracy	Poor–Fair; requires major correction
Statistical/numerical accuracy	Fair; significant corrections required
Medicinal/ethnobotanical component	Fair
Clarity of writing	Fair
Literature support	Fair
Overall quality	Fair
Publication recommendation	Major Revision

Short reviewer comment for the journal

The manuscript presents a potentially useful floristic inventory of Dupchanchia Upazila, Bogura District, Bangladesh, documenting 202 angiosperm species belonging to 64 families and highlighting 65 medicinally used species. The regional focus, field-based collection, voucher specimen documentation and ethnobotanical component are important strengths. However, substantial revision is required before the manuscript can be considered for publication. Major concerns include inconsistencies in the reported study period, incorrect percentages in the dominant-family table, taxonomic and nomenclatural errors, inconsistent habit classifications, possible duplication of voucher numbers, insufficient description of sampling and informant-selection procedures, and overstatement of some medicinal claims. The statement concerning the absence of previous floristic studies should also be expressed more cautiously. I recommend **Major Revision**, followed by re-evaluation after complete taxonomic, numerical, methodological and editorial corrections.

Bottom line: The study concept and regional dataset are potentially publishable, but the manuscript should **not be accepted in its present form**. The most urgent issues are **Table 7 percentage errors, taxonomic verification, voucher-number verification, study-period correction, and strengthening of the methodology**.

The recommendation is **Major Revision** because the manuscript has a potentially useful floristic dataset, but there are several **correctable scientific, numerical, taxonomic, methodological, and presentation problems** that affect the reliability of the results. Below is a **line-by-line reviewer justification** you can use directly.

Reviewer's Detailed Assessment and Justification for Major Revision

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Manuscript title: *Assessment of Angiosperm Flora at Dupchachia Upazila of Bogura District, Bangladesh Focusing on Important Medicinal Plants*

Overall Recommendation: **MAJOR REVISION**

The manuscript addresses a relevant topic and potentially provides useful baseline information on the angiosperm flora and medicinal plants of Dupchanchia Upazila. The documentation of 202 species belonging to 157 genera and 64 families could be valuable. However, substantial corrections are required before the manuscript can be considered for publication. The major concerns involve inconsistencies in the study period, numerical errors, taxonomic nomenclature, classification of plant habits, voucher-number reliability, insufficient methodological details, and unsupported or inadequately documented medicinal-use claims.

1. Title — Lines 1–3

Issue:

The title uses “**Dupchachia Upazila**”, whereas the manuscript repeatedly uses “**Dupchanchia**” and the study-area description uses “**Dhupchanchia**.”

Reason for concern:

The geographical name must be consistent throughout the manuscript. Inconsistent spelling may create difficulties in indexing, geographic identification, and comparison with previous floristic studies.

Required revision:

Use the officially accepted geographical spelling consistently throughout the title, abstract, text, tables, figures, and references.

Reviewer assessment: Major correction required.

2. Abstract — Lines 7–20

Issue 1: Study-period inconsistency

Line 8 states:

“over a one-year period spanning December 2024 to December 2025.”

However, the Materials and Methods section states that field visits were conducted from **July 2024 to December 2025**, and the Conclusion describes the research period as **18 months**.

Reason:

These statements describe different sampling periods and make the temporal design of the study unclear.

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Required revision:

The authors must establish the actual sampling period and use the same dates throughout the manuscript.

Issue 2: Numerical inconsistency in dominant families

Lines 12–15 state that Asteraceae had 18 species and subsequently list family values. However, the wording is grammatically confusing:

“Other well-represented families included Fabaceae, Cucurbitaceae, Amaranthaceae, Apocynaceae, Solanaceae, Poaceae, Moraceae, Brassicaceae, and Malvaceae represented by 18, 16, 13, 11, 9, 8, 7, 7, 6, and 6 species.”

There are ten numerical values but the sentence structure is unclear, and Asteraceae is already given as 18 species.

Reason:

The family-composition statement should correspond exactly to Table 7.

Required revision:

Rewrite this sentence and cross-check every family count against Table 1 and Table 7.

3. Introduction — Lines 23–66

Issue 3: Introduction is excessively general

Lines 23–63 contain extensive general information on angiosperms, food plants, medicinal plants, and pharmaceutical drugs.

Reason:

Much of this material is textbook-level background and does not directly establish the scientific rationale for conducting a floristic survey specifically in Dupchanchia Upazila.

Required revision:

Shorten the general botanical background and strengthen the following:

- regional floristic knowledge gap;
- ecological importance of Dupchanchia;
- previous botanical surveys in Bogura/Northern Bangladesh;
- medicinal-plant documentation gap;
- specific research objectives.

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Issue 4: Medicinal claims require careful qualification

For example, lines 50–52 state that garlic is used to control blood pressure, Rauvolfia is important for treating hypertension, and Withania is used to reduce stress and weakness.

Reason:

Traditional use, pharmacological activity, and clinically established therapeutic efficacy are different concepts.

Required revision:

Clearly distinguish **traditional/local medicinal use** from experimentally or clinically established therapeutic effects. The manuscript should avoid presenting ethnomedicinal claims as established clinical efficacy unless supported by appropriate evidence.

Issue 5: Research objective is grammatically unclear

Line 65–66:

“The aim of the present research was to explore and assesses the diversity and medicinal uses...”

Reason:

There is a grammatical error (“was to explore and assesses”).

Required revision:

Use wording such as:

“The aim of the present study was to assess the diversity of angiosperms and document the traditional medicinal uses of selected species in Dupchanchia Upazila of Bogura District, Bangladesh.”

4. Materials and Methods — Lines 68–88

Major Methodological Concern

Issue 6: Study-period inconsistency

Line 76 states:

“from July 2024 to December 2025”

whereas the Abstract and Results indicate December 2024–December 2025.

Reason:

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This is a major methodological inconsistency because the duration of field sampling directly affects interpretation of seasonal diversity and phenology.

Required revision:

State the exact dates of all field visits and use one sampling period consistently.

Issue 7: Number of field visits is insufficiently documented

Line 75 states that there were **15 field visits**, but no dates or seasonal distribution are provided.

Reason:

If the authors claim that visits covered seasonal variation, readers need to know when those visits occurred.

Required revision:

Provide either:

dates/months of the 15 visits, or

a table showing visit number, month/season, habitat surveyed, and location.

Issue 8: Sampling strategy is not sufficiently described

Line 77 mentions:

“all types’ of habitats, slope, village grove, fruit gardens, fallow lands, crop fields, roadsides...”

Reason:

There is no explanation of how locations were selected or how representative coverage was ensured.

Required revision:

Describe:

- villages/sites surveyed;
- habitat types;
- approximate sampling locations;
- selection criteria;
- whether sampling was purposive, systematic, or opportunistic.

Issue 9: Quantitative abundance classification is poorly defined

Lines 110–115 state that abundance was determined by **visual estimation** and categories included very common, common, rare, and very rare.

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Reason:

“Visual estimation” is subjective and not reproducible. No quantitative threshold is given for each category.

Required revision:

Define objective criteria for VC, C, R, and VR, preferably based on:

- number of sites;
- frequency of occurrence;
- number of individuals per sampling site;
- percentage of surveyed locations.

Issue 10: Ethnobotanical methodology is incomplete

Lines 80–82 mention 68 informants aged 27–76 years.

Missing information:

- gender distribution;
- villages represented;
- occupation;
- traditional healer status;
- selection criteria;
- interview duration;
- language;
- informed consent;
- ethical considerations;
- method used to record and verify medicinal information.

Reason:

The medicinal-use component is an important part of the manuscript but the methodology is not sufficiently reproducible.

Required revision:

Provide a detailed ethnobotanical methodology.

Issue 11: “Semi-structured interviewed method” is incorrect wording

Line 82 uses:

“semi-structured interviewed method”

Required revision:

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Use:

“semi-structured interviews.”

Issue 12: Voucher specimen information requires verification

Line 84 states that voucher specimens were preserved at the Herbarium of Rajshahi University.

Reason:

Voucher specimens are essential for validating a floristic inventory. However, several voucher numbers in Table 2 appear duplicated or unusually repeated.

Examples include:

- RB21
- RB103
- RB157
- RB120
- RB135
- RB07
- RB159
- RB149

Required revision:

The authors should verify every voucher number against the actual herbarium accession records and correct duplicate or erroneous numbers.

This is a major concern because the reliability of species identification depends on verifiable voucher specimens.

5. Identification — Lines 86–88

Issue 13: Taxonomic identification procedure requires strengthening

The manuscript cites several floras and nomenclatural references but does not state:

- who performed identification;
- whether specimens were independently verified;
- whether herbarium specimens were compared with authenticated collections;
- which current taxonomic database was followed.

Required revision:

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Provide the taxonomic authority/source used for accepted names and, preferably, indicate that doubtful specimens were verified by comparison with authenticated herbarium material.

6. Results and Discussion — Lines 90–117

Issue 14: Major contradiction regarding duration

Line 92:

“over a twelve-month period from December 2024 to December 2025.”

But the Conclusion says:

“between July 2024 and December 2025. This 18-month research period...”

Reason:

The manuscript simultaneously describes the study as 12 months and 18 months.

Required revision:

Correct all occurrences to the actual study duration.

Issue 15: Family percentages are incorrect

Lines 97–101 state:

“Asteraceae exhibited the highest species richness with 18% species...”

and similarly give Fabaceae as 16%, Cucurbitaceae as 13%, etc.

This is incorrect if the denominator is the total 202 species.

For example:

- Asteraceae: $18/202 \times 100 = 8.91\%$
- Fabaceae: $16/202 \times 100 = 7.92\%$
- Cucurbitaceae: $13/202 \times 100 = 6.44\%$
- Amaranthaceae: $11/202 \times 100 = 5.45\%$
- Apocynaceae: $9/202 \times 100 = 4.46\%$
- Solanaceae: $8/202 \times 100 = 3.96\%$
- Poaceae: $7/202 \times 100 = 3.47\%$
- Moraceae: $7/202 \times 100 = 3.47\%$
- Brassicaceae: $6/202 \times 100 = 2.97\%$
- Malvaceae: $6/202 \times 100 = 2.97\%$

Reason:

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The values reported in the text and Table 7 are substantially inflated and do not correspond to the stated total of 202 species.

Required revision:

Recalculate all percentages and ensure that the same values appear consistently in the text, table, and figure.

This is a major numerical error.

7. Habit Classification — Lines 105–109

The numerical totals:

- Herb = 87
- Shrub = 39
- Climber = 22
- Tree = 54

sum correctly to **202**.

The percentages are also mathematically correct.

However, Issue 16: Biological classification errors exist.

Examples:

- **Musa paradisiaca** is classified as a shrub.
- **Bambusa vulgaris** is classified as a tree.
- **Solanum tuberosum** is classified as a shrub in the medicinal table but herbaceous in the main inventory.
- **Oxalis corniculata** is classified as a tree in Table 3 but as an herb in Table 2.

Reason:

Habit categories must be botanically consistent throughout the manuscript.

Required revision:

Review the habit designation of every species using an authoritative botanical source.

8. Taxonomic/Nomenclatural Errors in Table 2

Issue 17: Numerous spelling and nomenclature errors

Examples include:

- “*Helianthus annuus*” → **Helianthus annuus**
- “*Chrysanthemum coronarium*” → **Chrysanthemum coronarium**

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- “Cleosia argentea” → **Celosia argentea**
- “Artocarpus lacucha” → **Artocarpus lacucha**
- “Mormordica dioica” → **Momordica dioica**
- “Clitoria tarnetea” → **Clitoria ternatea**
- “Carissa carandas” should be checked against the currently accepted name
- “Oleaceac” → **Oleaceae**
- “Nyctaginacea” → **Nyctaginaceae**
- “Cucurbitacea” → **Cucurbitaceae**
- “Mussaceae” → **Musaceae**

“Cinnamomum Verum” requires standardized capitalization/nomenclature

“Bacopa monnieri” contains corrupted text and should be corrected, most likely to **Bacopa monnieri**, subject to specimen verification.

Reason:

Incorrect scientific names directly affect the validity and discoverability of a floristic inventory.

Required revision:

Perform a complete taxonomic audit of all 202 taxa.

9. Table 1 — Family Composition

Issue 18: Internal consistency must be checked

Table 1 reports the distribution of species among families and habits. The total is given as:

87 herbs + 39 shrubs + 22 climbers + 54 trees = 202 species.

However, individual entries should be cross-checked against Table 2.

Reason:

Any discrepancy between Table 1 and the master species list undermines the reported diversity statistics.

Required revision:

Recalculate Table 1 directly from the verified species inventory rather than manually entering the numbers.

10. Table 2 — Species Inventory

Issue 19: Voucher numbers appear duplicated

Examples include repeated voucher numbers assigned to different species.

Reason:

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A voucher number should uniquely identify the relevant specimen/accession unless the authors explicitly explain their numbering system.

Required revision:

Verify all accession numbers with herbarium records.

Issue 20: Typographical and formatting errors are extensive

Examples:

- inconsistent spacing;
- “DecFeb”;
- “MaYAug”;
- “NovFeB”;
- “Apr_ Sep”;
- “JanNov”;
- inconsistent capitalization;
- broken scientific names;
- inconsistent abbreviations.

Reason:

These errors reduce readability and raise concerns about data-entry accuracy.

Required revision:

Conduct complete language and table-format editing.

11. Table 3 — Medicinal Plants

Issue 21: Medicinal claims are not adequately supported

The table contains statements such as:

- “used for diabetes treatment”;
- “help lower blood sugar levels”;
- “detoxify the liver”;
- “reduces oxidative stress”;
- “boost immunity”;
- “lowers blood pressure”;
- “strengthen the heart muscles.”

Reason:

These statements can be interpreted as pharmacological or clinical claims rather than documentation of traditional local use.

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Required revision:

Use terminology such as:

“According to local informants, the plant is traditionally used for...”

and provide supporting ethnobotanical references wherever possible.

Issue 22: Number of medicinal plants needs reconciliation

The manuscript states that **65 medicinal species** were documented.

Table 3 contains 65 entries, which is internally consistent, but the authors need to explain the selection criterion for these 65 species from the total 202 species.

Required revision:

State whether:

- all medicinal plants identified by informants were included;
- only species mentioned by a minimum number of informants were selected;
- selection was based on literature plus interviews;
- or another criterion was used.

Issue 23: “37 ailments” is not demonstrated

The Conclusion states that the 65 medicinal plants were used for **37 different human ailments and health conditions**.

Reason:

No separate analysis clearly demonstrates how the number 37 was obtained.

Required revision:

Provide a disease/ailment category table or explain the calculation.

Issue 24: Incorrect habits and botanical information occur in Table 3

Examples:

- *Musa paradisiaca* is given as “Shurb.”
- *Oxalis corniculata* is given as a tree.
- *Solanum tuberosum* is given as a shrub.

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- “Mussaceae” and “Cucurbitacea” are incorrect family spellings.

Required revision:

Make Table 3 consistent with the verified taxonomic inventory in Table 2.

Issue 25: Plant parts are sometimes botanically inaccurate

For example:

Allium cepa — “Rhizome”

The commonly used plant organ is the **bulb**, not a rhizome.

Required revision:

Verify all “used parts” entries.

12. Abundance Analysis — Lines 110–117

Issue 26: Abundance categories are not quantitatively reproducible

The manuscript reports:

- Very Common = 51
- Common = 136
- Rare = 14
- Very Rare = 1

These sum to 202, and the percentages are mathematically correct.

However:

The criteria are based on visual estimation.

Reason:

Two researchers could classify the same species differently.

Required revision:

Provide measurable criteria for each abundance category.

13. Discussion — Lines 160–180

Issue 27: Discussion is largely descriptive

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The discussion primarily compares the number of species in Dupchanchia with numbers reported from other areas.

Reason:

Species richness comparisons between different studies can be misleading because sampling effort, habitat size, study duration, habitat diversity, and taxonomic treatment differ.

Required revision:

Discuss these limitations when comparing:

- Dupchanchia;
 - Khagrachhari;
 - Lawachara;
 - Runtia;
-
- Habiganj;
 - Rajshahi;
 - Bangladesh Police Academy.

Issue 28: Novelty claim is too absolute

Line 178–179 states:

“No published information recorded on the diversity of angiosperm flora at Dupchanchia Upazila...”

Reason:

An absolute claim of absence of previous research is difficult to establish unless a systematic literature search is documented.

Recommended wording:

“To the best of our knowledge, no previous comprehensive floristic survey of the angiosperm flora of Dupchanchia Upazila, Bogura District, Bangladesh, has been published.”

The authors should also describe the databases and search strategy used to establish the literature gap.

14. Table 7 — Dominant Families***Issue 29: Major numerical error***

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Table 7 reports:

Family	Species Reported	% Correct	% of 202
Asteraceae	18	17.82%	8.91%
Fabaceae	16	15.84%	7.92%
Cucurbitaceae	13	12.87%	6.44%
Amaranthaceae	11	10.89%	5.45%
Apocynaceae	9	8.91%	4.46%
Solanaceae	8	7.92%	3.96%
Poaceae	7	6.93%	3.47%
Moraceae	7	6.93%	3.47%
Brassicaceae	6	5.94%	2.97%
Malvaceae	6	5.94%	2.97%

Reason:

The percentages appear to have been calculated incorrectly, approximately as if the denominator were 101 rather than 202.

Required revision:

Recalculate all values and regenerate Figure 4.

This alone requires correction before publication.

15. Conclusion — Lines 218–231

Issue 30: Conclusion repeats the study-period contradiction

It states:

“between July 2024 and December 2025”

and:

“This 18-month research period...”

while the Abstract and Results state December 2024–December 2025.

Required revision:

Correct the study period.

Issue 31: “Comprehensive coverage” is not adequately demonstrated

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The manuscript claims:

“This 18-month research period ensured comprehensive coverage...”

Reason:

Fifteen field visits alone do not automatically demonstrate comprehensive sampling.

Required revision:

Use more cautious wording unless the sampling design supports the claim.

Issue 32: Medicinal importance is overstated

The conclusion states that the medicinal plants demonstrate the “vital role” of traditional remedies in local healthcare.

Reason:

The study documents reported traditional uses; it does not establish therapeutic efficacy or quantify dependence on these remedies.

Required revision:

Limit the conclusion to the documentation of traditional medicinal knowledge.

16. References — Lines 236–379

Issue 33: Duplicate references

The following appear duplicated:

References **32 and 33**

References **42 and 43**

References **48 and 50**

Reason:

Duplicate references reduce bibliographic accuracy and suggest insufficient reference checking.

Required revision:

Remove duplicates and renumber all citations accordingly.

Issue 34: Reference formatting is inconsistent

Examples include:

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- inconsistent punctuation;
- missing spaces;
- inconsistent journal names;
- inconsistent volume/issue formatting;
- typographical errors;
- inconsistent capitalization;
- incomplete bibliographic information.

Required revision:

Format all references according to the target journal's reference style and verify each reference against the original publication.

17. Language and Presentation

Issue 35: Extensive grammatical and typographical problems

Examples include:

- “thepresent”
- “assesses” after “was to
- “variousliterature”
- “all types’ ofhabitats”
- “medicinal importanceand”
- “ContributingPoaceae”
- “Brassicaceae and Malvaceaeare”
- “Outof”
- “DupchanchiaUpazila”

Reason:

The frequency of errors affects scientific readability and professionalism.

Required revision:

The manuscript requires comprehensive English-language editing.

18. Scientific Significance

The study has **potential scientific significance** because it provides a localized inventory of angiosperms from an area for which the authors report limited previous comprehensive documentation. The reported 202 species, 157 genera, 64 families, and 65 medicinal species could provide useful baseline information.

However, the significance will depend on verification of:

- species identities;
- voucher specimens;

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- sampling period;
- numerical calculations;
- abundance categories;
- medicinal-use data.

19. Overall Strengths

- The study addresses a relevant regional floristic gap.
- A substantial number of species are reported.
- Voucher specimens are reportedly deposited in a recognized herbarium.
- The study attempts to cover seasonal variation.
- The manuscript includes habit, occurrence, wild/planted status, phenology, and voucher information.
- The medicinal-plant component adds applied relevance.
- The data could form a useful baseline for future biodiversity and conservation studies.

20. Overall Weaknesses

The principal weaknesses are:

Conflicting study periods.

Incorrect percentages in Table 7.

Numerous taxonomic and spelling errors.

Inconsistent plant-habit classifications.

Duplicated/suspicious voucher numbers requiring verification.

Insufficient description of sampling design.

Insufficient ethnobotanical methodology.

Subjective abundance classification.

Insufficient evidence for the stated 37 ailments.

Medicinal claims sometimes extend beyond what the study design demonstrates.

Duplicate references.

Extensive language and formatting problems.

Novelty claim is too absolute.

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Discussion requires deeper interpretation rather than simple comparison of species numbers.

21. Reviewer Recommendation

Recommendation: MAJOR REVISION

The manuscript should **not be rejected solely on the basis of these problems**, because the underlying floristic survey may contain useful original field data. However, the manuscript requires substantial revision before its scientific reliability can be adequately assessed.

The authors should first verify the **raw species inventory and herbarium vouchers**, then correct the **taxonomy, study period, numerical calculations, tables and figures**, and finally revise the **methodology, medicinal-use interpretation, discussion, references and English language**.

Suggested reviewer rating

Assessment criterion	Rating	Justification
Originality	Good	Potentially useful localized floristic inventory; originality should be confirmed through literature/database searching
Scientific significance	Good	Provides potentially useful baseline biodiversity information
Technical quality	Fair	Significant methodological and data-presentation problems
Methodology	Fair	Field collection described, but sampling and ethnobotanical methods require substantial clarification
Taxonomic accuracy	Poor–Fair	Numerous nomenclatural, spelling and classification problems
Data accuracy	Fair	Major percentage and consistency errors require correction
Tables/Figures	Fair	Useful but require numerical, taxonomic and formatting corrections
Medicinal-plant component	Fair	Potentially valuable but medicinal claims and methodology need strengthening
Discussion	Fair	Comparisons are useful but interpretation is limited
References	Fair	Relevant references included, but duplicate and formatting errors exist
Language	Poor–Fair	Extensive grammar, spelling and formatting problems
Overall manuscript quality	Fair	Potentially publishable after substantial revision
Final recommendation	MAJOR REVISION	Major but potentially correctable scientific and presentation issues

Final Reviewer Comment

The manuscript contains potentially valuable baseline information on the angiosperm diversity and traditional medicinal plants of Dupchanchia Upazila. However, several issues currently prevent reliable evaluation of the reported findings. In particular, the conflicting study periods, incorrect family percentages, taxonomic/nomenclatural errors, inconsistent habit classifications, questionable duplicate voucher numbers, insufficient sampling and ethnobotanical methodology, and unsupported medicinal-use statements require careful correction. The authors should undertake a complete verification of the species

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inventory against the voucher specimens and recalculate all quantitative data before resubmission. Following these corrections and comprehensive language and reference editing, the manuscript can be reconsidered.

In short: the reason for **Major Revision is not that the study is without value**. The main issue is that the manuscript currently has **multiple internal inconsistencies and data-validation problems that must be corrected before the reported 202-species dataset can be considered reliable**.