RUBRIC FOR SLE254 POSTER ASSESSMENT T2 2024

Assessment Criteria	Excellent	Satisfactory	Approaching	Not achieved	%
Title					**3**
Title conveys accurate description of content	A very clear and descriptive title (<15 words) 3	A descriptive title that could be clearer (<15 words) 2	A somewhat descriptive title, yet could be clearer and/or did not fully convey the description of the content (~15 words) 1	A title, yet could be clearer and more descriptive, that did not convey the appropriate description of the content (>15 words) 0	3
Introduction					**20**
An account of the current scientific research area, setting the scene for the scientific problem to be addressed. *Use a min. of 3 peer-reviewed papers plus any other creditable sources of material to support any claims and statements.*	A very clear and concise introduction of the research area. *Use of ample referenced material to support statements (at least 3 or more peer-reviewed published papers).* 7	A clear and concise introduction of the research area. *Limited use of referenced material to support statements (at least 2 or more peer-reviewed published papers).* 5	A somewhat clear introduction of the research area. *Limited use of referenced material to support statements (at least 1 or more peer-reviewed published paper).* 3	An introduction of the research area is not very clear or concise, and or is missing. *No use of referenced material to support statements.* 0	7
Further important concepts addressed: (i) how markers can be used to distinguish between sex in monomorphic species and their young; (ii) what is meant by heterogametic sex; and (iii) the importance of sample type and any further considerations needed when performing these types of studies.	This section covers all key points thoughtfully and thoroughly, identifying why this topic is important to investigate and supports claims with citations of scientific literature. Is written in a style appropriate for a scientific paper. 8	This section covers all major key points well, and supports claims with citations of the scientific literature and is written in a style appropriate for a scientific paper, may include unnecessary or irrelevant information. 6	This section touches on some key points, but needs to be more in depth. Only some statements are referenced with citations of the scientific literature. It is generally written in a style appropriate for a scientific paper with room for moderate improvements. 4	This section has an introduction that does not touch on key points. Writing style needs development. 0	8
What are the specific aim/s of the research being presented in the poster, and how these were achieved (i.e. overview of experimental design). *This is usually the last paragraph of the introduction*	A very clear and concise statement of the aim/s. Aim/s of study are thoughtfully linked to the background provided in the body of the introduction. *Added a robust brief on how these aim/s were achieved (that is, noting all key elements of the experimental design and approach).* 5	A clear and concise explanation of some aim/s. Aim/s have not been cohesively linked to the background provided in the body of the introduction, or only 1 aim has been cohesively linked to background. *Added a less descriptive brief on how these aims were achieved (that is, noting some key elements of the experimental design and approach).* 4	A somewhat clear explanation of the aim/s. If only one aim of the study is given, it is not cohesively linked back to body of the introduction. *Adding scant information on how these aims were achieved (that is, noting very little/nothing regarding the experimental design and approach).* 2.5	An explanation of the aims and how these aims were achieved is not very clear or concise, or are missing. 0	5

Methods					**10**
Specific account of the methods used. Methods should be succinct and written as a paragraph (using past tense) and not in dot point format. Do NOT provide a list of materials. Specifically make an account of the DNA extraction, PCR and visualisation methods. Avoid the use of irrelevant steps in the procedures, e.g. "I put my gloves on before…" or "I then disposed of the tube"	A very clear and concise explanation of all of the methods used, so that the whole experiment could be easily repeated. Written as a paragraph in *past tense*, no dot points, no lists. *All experimental design and sampling explained, laboratory protocols correctly noted and referenced and all downstream analyses described and referenced correctly.* 10	A clear and concise explanation of most of the methods used, so that the whole experiment could be easily repeated. Written as a paragraph, no dot points, no lists. *Some <u>minor</u> details missing or incorrect when describing the experimental design and sampling, laboratory protocols and downstream analyses.* 7.5	A somewhat clear explanation of most of the methods used. The whole experiment would not easily be able to be repeated due to the nature of this description. Maybe written as a paragraph or dot pointed, may have lists. *Some <u>major</u> details missing or incorrect when describing the experimental design and sampling, laboratory protocols and downstream analyses.* 5	An explanation of the methods used is not very clear or concise, or is missing. Maybe written as a paragraph or dot pointed, may have lists. *Most major analyses/steps in the experimental design and sampling, laboratory protocols and downstream analyses are missing.* 0	10
Results					**28**
Presentation of data: Annotated agarose gels showing extracted DNA and PCR products from all three tissue types. Gel images should include detailed figure captions. Annotation shows: positive controls (male and female), negative control and size marker. Remember that Figure captions go underneath the Figure.	Both gel images should comprise appropriate *annotation* (what the lanes comprise). Each gel has a *descriptive caption* (position: under the Figure). 5	Both gel images have some *annotation* (what the lanes comprise), and/or each gel has a somewhat *descriptive caption.* 4	Both or one gel image have little/no *annotation* (what the lanes comprise), and/or each gel has a limited *caption.* 2.5	Neither gel images has *any annotation* (what the lanes comprise), and has *no caption*. Or, both gel images are missing. 0	5
Presentation of data: Summary Table showing the estimated "mean" concentration and "SD" of the DNA/PCR products derived from the three tissue types. Do NOT present raw data. The table should look professionally produced, comprising a detail title. Remember that Table titles go above the Table.	Table/s are clearly labelled with descriptive titles (position: at the top of the table/s). Only mean data is presented, no raw data. *Features of the table/s are labelled correctly, are clear, consistent and well presented.* 5	Table/s are somewhat clearly labelled with descriptive titles. Only mean data is presented, no raw data. *Some <u>minor</u> details/features missing or incorrect in the Table/s. Overall, the Table/s are well presented.* 4	Table/s are somewhat labelled with titles. Raw or mean data is presented. *Some <u>moderate</u> details/features missing or incorrect in the Table/s. Overall, the Table/s are not so well presented.* 2.5	Table/s are not properly labelled with titles. Raw or mean data is presented. *Some <u>major</u> details/features missing or incorrect in the Table/s. Table/s maybe missing.* 0	5

Determining the sex for each of the samples shown on the **PCR** gel (does not include the control). Presented through annotation on the gel or a separate table.	Determine the sex for each of the samples shown on the gel (does not include the control). 5	Determine the sex for most of the samples shown on the gel (does not include the control). 4	Determine the sex for some of the samples shown on the gel (does not include the control). 2.5	Determine the sex for none of the samples shown on the gel (does not include the control). 0	5
Results text: This section describes the main findings from the work, making all of the appropriate comparisons that address all aims. *Cite key values and outcomes* from presented figures/tables to provide evidence that supports your statements.	A very clear, concise and accurate description of the key results; specifically (i) making comparisons between tissue types (amplification); (ii) noting the final outcome (determination of sex) e.g. how many samples were male/female; (iii) noting the approximate base pair size of the W and Z genes; (iv) noting if all samples (incl. controls) amplified. All statements and interpretations were true and correct. Description of key findings is backed-up by evidence (citing key values and outcomes from the figures/tables). 10	A clear and accurate description of the key results, somewhat; (i) making comparisons between tissue types (amplification); (ii) noting the final outcome (determination of sex) e.g. how many samples were male/female; (iii) noting the approximate base pair size of the W and Z genes; and (iv) noting if all samples (incl. controls) amplified. Some minor misunderstanding in the interpretation of results. Description of key findings is backed-up by evidence (citing some key values and outcomes from the figures/tables). 7.5	A clear and/or somewhat accurate description of some key results; (i) making comparisons between tissue types (amplification); and/or (ii) noting the final outcome (determination of sex) e.g. how many samples were male/female; and/or (iii) noting the approximate base pair size of the W and Z genes; and/or (iv) noting if all samples (incl. controls) amplified. Some moderate misunderstanding in the interpretation of results. Description of findings maybe backed-up by evidence (citing limited key values and outcomes from the figures/tables). 5	A somewhat statement of some results; either making some comparisons between tissue types OR noting the final outcome (determination of sex) etc... Overall, major misunderstanding in the interpretation of results. Description of findings NOT backed-up by evidence (citing limited key values and outcomes from the figures/tables). 0	10
Each included Figure/Table is to be referred to in the text section	All presented figures and tables are cited/referred to in the text of the results section. 3	All but ONE presented figures and tables are cited/referred to in the text of the results section. 2	Only 1 presented figures and tables are cited/referred to in the text of the results section. 1	No presented figures and tables are cited/referred to in the text of the results section. 0	3
Discussion					**23**
Reiterate the main findings for further discussion. Were the aims achieved? Hypotheses accepted?	A very clear and concise reiteration of the key findings in context to the greater scientific problem. 3	A clear and concise reiteration of the key findings in context to the greater scientific problem. 2	A somewhat clear reiteration of the key findings in context to the greater scientific problem. 1	No reiteration of the key findings in context to the greater scientific problem. 0	3

Discuss whether there were observed differences in the concentration of DNA extracted from the three tissues types. Was the observed result consistent with expectations? Discuss the pros and cons of using different tissue types for genetic studies of wild animals (hint: destructive, non-destructive, invasive and non-invasive sampling).	These specific key points were thoughtfully and thoroughly covered, citing appropriate scientific literature. It is written in a style appropriate for a scientific paper. 5	These specific key points were somewhat covered, citing some scientific literature. It is written in a style appropriate for a scientific paper. 4	These specific key points were scantly covered, maybe/maybe not citing the scientific literature. It is somewhat written in a style appropriate for a scientific paper. 2.5	These specific key points were not covered. 0	5
Discuss why DNA extracted from the blood spot on a feather would provide DNA of higher quality than that extracted from the tip?	These specific key points were thoughtfully and thoroughly covered, citing appropriate scientific literature. It is written in a style appropriate for a scientific paper. 2	These specific key points were somewhat covered, citing some scientific literature. It is written in a style appropriate for a scientific paper. 1.5	These specific key points were scantly covered, maybe/maybe not citing the scientific literature. It is somewhat written in a style appropriate for a scientific paper. 1	These specific key points were not covered. 0	2
Discuss the implications of not storing samples intended for genetic analysis correctly? Was DNA degradation evident in any of the tissue types used in this experiment? Discuss the implications of finding a lack of bands in the sample wells on the gel/s. See the tutorial on DNA.	These specific key points were thoughtfully and thoroughly covered, citing appropriate scientific literature. It is written in a style appropriate for a scientific paper. 5	These specific key points were somewhat covered, citing some scientific literature. It is written in a style appropriate for a scientific paper. 4	These specific key points were scantly covered, maybe/maybe not citing the scientific literature. It is somewhat written in a style appropriate for a scientific paper. 2.5	These specific key points were not covered. 0	5
Discuss how the universal primers used in this experiment are able to provide information about the sex of an individual. Discuss the advantages of employing universal sexing molecular markers. Discuss any further implications of using this approach.	These specific key points were thoughtfully and thoroughly covered, citing appropriate scientific literature. It is written in a style appropriate for a scientific paper. 5	These specific key points were somewhat covered, citing some scientific literature. It is written in a style appropriate for a scientific paper. 4	These specific key points were scantly covered, maybe/maybe not citing the scientific literature. It is somewhat written in a style appropriate for a scientific paper. 2.5	These specific key points were not covered. 0	5
Citation of scientific literature in the discussion.	*At least 5 or more <u>appropriate</u> peer-reviewed papers are used as context.* 3	*Three or four peer-reviewed papers are used as context.* 2	*One or two peer-reviewed papers are used as context.* 1	*No appropriate peer-reviewed papers are used as context.* 0	3

Conclusions					**5**
A brief statement of general conclusions relating back to the aims of the work, provide context to the broader science (i.e. validity of use of genotyping in determining sex of *Gallus gallus*?), and make some suggestions for future directions/work in the field.	A very clear and concise conclusion addressing the aims, addressing implications of findings and future directions. No literature should be cited. 5	A clear and concise conclusion addressing the aims, addressing some implications of findings and future directions. Literature may be cited. 4	A somewhat clear conclusion addressing some aims, addressing some implications of findings and future directions. Literature may be cited. 2.5	A conclusion addressing aims, implications of findings and future directions is not very clear or concise, or is missing. Literature may be cited. 0	5
Citations and referencing					**5**
Correct and consistent formatting of in-text citations and references in the reference list using a Harvard referencing method	Used correct formatting style for in-text citations and all references in reference list. No errors were made. 5	Minor errors in formatting style; **or** minor errors with the in-text citations **or** not all references listed here have been cited. 4	Moderate errors in formatting style; **AND** minor errors with the in-text citations **AND** not all references listed here have been cited. 2.5	Major errors in formatting style; **and/or** major errors with the in-text citations **and/or** most references listed here have not been cited. 0	5
Visual presentation, layout and language					**6**
Professional presentation. Text comprises well-constructed sentences free from spelling and grammatical errors. Formal scientific language is used, and includes correct use of technical terminology. Assignment is written in students' own words. Good overall presentation. Appropriate word count of 800-1500 words.	The whole report is clearly narrated in student's own words, with well-constructed sentences and no errors. • Scientific terminology is correctly used. • Visually appealing colour scheme. • Refrained from overcrowding the poster with large blocks of text. • Images are large enough and easy to understand. • Easy to follow, clear structure, good use of headings. • Use of graphics, colour and fonts have been used effectively to achieve a consistent and clean layout. • Correct word count. 6	The whole report is narrated in student's own words, with nice sentences and limited errors. *Other minor errors may include 1 of these:* • Scientific terminology may not always be correctly used. • Not so visually appealing colour scheme. • Slightly overcrowded or too much white space on poster. • Images are too small or too large. • Structure somewhat difficult to follow, needed better headings. • Some inconsistencies in the use of graphics, colours and/or fonts. • Word count is significantly above or below limit (by 500 words). 4	The whole report is narrated in student's own words, with satisfactory sentences, with moderate errors. *Other moderate errors may include 2 of these:* • Scientific terminology may not always be correctly used. • Not so visually appealing colour scheme. • Severely overcrowded or too much white space on poster. • Images are too small or too large. • Structure somewhat difficult to follow, needed better headings. • Some inconsistencies in the use of graphics, colours and/or fonts. • Word count is significantly above or below limit (by >500 words). 2	The presentation is narrated with disjointed sentences, with moderate/major errors. *Other major errors may include >2 of these:* • Scientific terminology may not always be correctly used. • Not so visually appealing colour scheme. • Severely overcrowded or too much white space on poster. • Images are too small or too large. • Structure somewhat difficult to follow, needed better headings. • Some inconsistencies in the use of graphics, colours and/or fonts. • Word count is significantly above or below limit (by >500 words). 0	6