**Year 12 Biology**

**Task 13**

**Environmental Investigation**

**Macroinvertebrate Wetland Reservoir**

**Weighting 5%**

**Due Term 3 Week 9**

**Miss Cunningham**

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Biodiversity is important in maintaining a healthy planet. In countries all over the world, areas of land and water are set aside as National Parks or Reserves to protect wildlife of that region. Often the species in an area are unique and may be at risk or an endangered species.

Western Australia has many unique organisms. In this task, you have to present a case study report about a wetland reserve area in Western Australia. In your case study report, you are to address the following areas of your reserve:

* Identify the reasons why the park/reserve was created.
* Describe the physical environmental (abiotic factors). Describe the biotic (living) part of the ecosystem within your nominated area.
* Illustrate the feeding relationships within your ecosystem.
* Discuss the possible human impacts of the area and how they affect the living environment.
* Discuss the non-human impacts of the area and how they affect the living environment.
* Moving forward some management regimes individuals and government organisations can use to benefit the area.

In your case study report, please include an introduction, subheadings and a conclusion. You may also include photographs from internet sources to illustrate your descriptions and observations, but remember to credit the photographer/site it is sourced from. All referencing is to be completed in APA format with at least 8 references.

**Planning**

Please complete the table below, using your research skills to investigate various wetland areas in Western Australia and biodiversity present there.

|  |  |
| --- | --- |
| Reserve Area Name | Environmental factors and species present |
| 1) |  |
| 2) |  |
| 3) |  |
| 4) |  |
| 5) |  |
| 6) |  |
| 7) |  |
| 8) |  |

Please select one of the wetland reserves you have researched above, and complete further research on it being sure to fill in the table below. **Please note all websites and sources used to be referenced in APA format.**

|  |  |
| --- | --- |
| Reserve of Choice |  |
| Where it is located |  |
| How long has it been |  |
| Why created |  |
| Species present |  |
| Risk/Endangered |  |
| Abiotic factors |  |
| Biotic factors |  |
| Feeding relationships |  |
| Human impacts |  |
| Non-human impacts |  |
| Individual/government support |  |

Use your planning from above and draft your case study report, being sure to then produce a final handwritten copy for submission with your references. You may use your Nearer to Nature incursion booklet for assistance when planning and drafting your report if needed.

**Marking Rubric (33 marks)**

|  |  |  |  |
| --- | --- | --- | --- |
| **Required Content** | **Limited 1** | **Satisfactory 2** | **Comprehensive 3** |
| **Reasons park was created.** | Brief mention of why or how. | Brief mention of why and how. | Detailed information on why and how. |
| **Species present** | Identify most species with some missing. | Identify all species. | Identify and explain in detail all species. |
| **Risk/Endangered** | Identify some species at risk. | Identify all species at risk. | Identify and explain all species at risk. |
| **Abiotic factors** | Identify some abiotic factors. | Identify all abiotic factors. | Identify all abiotic factors and describe their affect. |
| **Biotic factors** | Identify some biotic factors. | Identify all biotic factors. | Identify all biotic factors and describe their affect. |
| **Feeding relationships** | Discuss the trophic levels in area. | Discuss trophic levels in area identifying species in each level. | Present detailed food web of all species in area. |
| **Human Impacts** | Brief description of some human impacts. | Brief description of multiple human impacts. | Detailed description of multiple human impacts. |
| **Non-human impacts** | Brief description of some non-human impacts. | Brief description of multiple non-human impacts. | Detailed description of multiple non-human impacts. |
| **Individual and government support regimes** | Brief description of individual or government regimes. | Brief description of individual and government regimes. | Detailed description of individual and government regimes. |
| **Report structure** | Introduction and conclusion brief, no subheadings and no diagrams. | Introduction and conclusion, subheadings but no diagrams. | Introduction and conclusion, subheadings and diagrams included. |
| **References** | 4 or more references correctly APA format. | 6 or more references correctly APA format. | 8 or more references correctly APA format. |

**Total: / 33**