**FW364: Lab 2 Grading Rubric**

**Completeness**

**General Information and Assumptions**

- Statement of research question, i.e., calculating number of Loch Ness monsters 2

- Mention steady-state assumption 2

- Mention assumption of phosphorus concentration of Loch Ness 1

- Mention assumption involving trophic level of monster 1

- Mention assumption about fish vs. mammal 1

- Mention assumption of mass of monster 1

**Methods and Results**

- Equation: log10NPP = 0.83(log10[TP]) + 0.56 presented 1

- Turnover time equation for fish: T = 133(W0.28) and mammals: T = 32(W0.33) presented 1

- Equation: T = S/F presented 1

- Correct calculation of NPP 2

- Correct calculation of flow to monsters (Fm) 2

(0.001\*NPP for 4th trophic level; 0.0001\*NPP for 5th trophic level)

- Correct calculation of monster turnover time (Tm) 2

- Correct calculation of monster stock (Sm) 2

- Correct usage of surface area to calculate total biomass in Loch Ness 2

- Correct apportioning of total biomass into individuals 2

- Calculations presented for two different phosphorus concentrations of Loch Ness 1

- Calculations presented for two different trophic levels 1

- Calculations presented for fish and mammal turnover times 1

- Calculations presented for two different masses of monster 1

- Correct unit conversion for mass of elephant (kg to g) 1

- Correct unit conversion for turnover time (days to yr) 1

- Inclusion of correct units throughout calculations 1

**Interpretation**

- Some interpretation of results regarding likelihood of monsters in lake 3

**Other**

**Organization**

- Table of results presented clearly 1

- Topics presented in an organized manner 3

- Clear logical flow throughout the description of methods and results 3

**Clarity**

- Text is easy to comprehend 2

- *Sense that the student understood the problem (subjective)* 4

**General Presentation**

- Good grammar 2

- Good spelling 2