**Bio-Blitz in the UBC Herbarium at the Beaty Biodiversity Museum**

**FACILITATOR LESSON PLAN**

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| **COURSE:** Biology 121 | **DATE:** WT2 |
| **BRIDGE:** TBD |
| **OBJECTIVES (Students):*** Observe and measure variation within a single species.
* Identify key information from specimen labels and recognize importance of good record keeping (and consequences of poor record keeping)
* Explain the importance of preserving more than a single specimen of a given species.
* Recognize that collection data are historical records that can vary greatly and require strict organization. Gain insight to the history and variation of collection data throughout time.
* Recognize role of the BBM in collections-based research and preserving a historical record of biodiversity.

**OBJECTIVES (Museum):*** Generate partial inventory of research collection.
* Demonstrate potential for research projects that collaborate with early and large-enrollment Biology Program courses.
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| **PREASSESSMENT:** Pre-Assessment Survey  | **MATERIALS:**  |
| **PARTICIPATORY LEARNING** |
| TIME | ACTIVITY | RESOURCES |
| **10 mins** **10 mins****40 mins****40 mins** (15 mins counting / area + 10 mins to set-up or move around)**10 mins** | **Arrival:** meeting pointat gift shop. Move group to Discovery LabI**ntroduction** (Linda)– **PROJECT RATIONALE:** Why are we doing this Collection BioBlitz project: “Though this collection has been tracked for 100 years, it has been by many different methods, and we find ourselves 100 years later not knowing exactly what we have.”– **HANDLING SPECIMENS:** Instruct on proper handling of specimens (including: no touching with pencils/ pens)– Instruct that accuracy is key, not a competition for speed. **Intro to museum collections Activity in Discovery lab*** Students, in pairs, rotate through 2 stations total.

Each pair completes a worksheet at each station. See below for worksheets.**Counting** **STATION SET-UP:**– Station 1 — Ferns (Linda/Erin; cabinets?) – Station 2 — Nereocystis (Bridgette/M&W -Barbara, F-Karina; DiscoLab)* split class: 12 students, 6 pairs w/ Ferns, 6 pairs w/ Laminaria. Groups will switch after 15 minutes to alternate station.
* Second group uses same counting sheets & laptop as first group

Station One - FernsCount # sheets within each folder, record on Fern Count Sheet. One student counts, other records. Switch roles halfway @ 7.5mins. * Erin &Linda - will help with questions about activity, make sure the collection is being properly handled, and help with step stool safety.
* IMPORTANT: use drop tags to mark location where first groups finished counting in Conifer cabinets.
* IMPORTANT: student names recorded on counting sheet.

Station Two - *Laminaria*Search and check off accession #s, record folder # on laptop in *Laminaria* spreadsheet. One student handles the specimen and the partner records the accession number on the spreadsheet. Switch roles @ 7.5mins.* BC/? - will help with student questions about activity, make sure collection is being handled properly and move folders to the students. Four tables will be provided to place folders that are done, and folders waiting to be inventoried
* IMPORTANT: Make clear where first group stopped counting: open folder with next-to-be counted specimen on right side for*Laminaria* .
* IMPORTANT: Student names (4 total) added to spreadsheet. Save spreadsheet before switching & at end.

**Wrap-up / Reflection** (Bridgette)– whole group returns to Discovery Lab. – Brief poll: Questions? how was the experience of the inventory? – Assign post-activity reflection survey (post on 121 Connect site) | – nothing- Station materials (TBD)Ferns – Clipboard and pencil x 6– Conifer count sheet x 6 – Extra pencils– Drop tags– Table x 2 *Laminaria* – Laptop loaded with spreadsheet, checked for updates, power, etc. x 6– Post-it notes for temporary tracking of counted – Laminaria specimens in their respective folders – Table x 4 for folders to stack specimens– Do not touch signs from Outreach |
| **POST-ASSESSMENT:**– Individual reflection survey |
| **SUMMARY/CLOSURE:** – Thank students for help with inventory. Mention that Bridgette will review and summarize the data in class.  |