

**Biomimicry: Innovation Inspired by Nature**  
Local champion & deep pattern scavenger hunt (3 parts)  
OBSERVE & ABSTRACT

**Assignment 2**

**Instructions:**

- record Part 1 & 2 in your journal
- turn in Part 3 at the start of next class

**Part 1:**

Select a local habitat (e.g., your backyard, Clark Fork River, UM campus, etc.). Vividly describe your habitat using no more than 5 sentences.

**Part 2:**

In this habitat, find and briefly describe at least two examples (1 organism & 1 strategy) for each of the functions listed below.

(Note: strategies fall into 3 categories. **form**: shapes and patterns that achieve required function; **process**: a series of actions that work together to achieve an end; **system**: a series of interacting elements or organisms that work together to achieve a function).

For example, under packaging...

Organism: Iris flower seed pod.

Strategy: (form) ~2", cup-like vessel with 3 rigid walls that holds small, dense seeds.

List of functions:

- Packaging
- Water purification
- Water availability
- Transportation of materials
- Protection from biota
- Cleaning
- Absorbing
- Communication flows
- Feedback systems
- Protection from abiotic factors (i.e., weather)

Did your list contain any organisms that were able to meet multiple functions on the list (known as a "local champion")? Identify any local champions on your list.

**Part 3:**

Select one function (e.g., packaging) from the list above that interests you. Find at least 2 more examples of organisms that exist in the habitat you've selected that are meeting your chosen function. What are the reoccurring themes in strategy (or "deep patterns") that you have observed various organisms using to meet the challenge of this function?

**Write a 2-page (double-spaced, 12pt font) summary of the deep patterns you've found using an engaging writing style. Your audience is an adult who has never heard of biomimicry and that does not possess a science background. Your summary will be graded on your ability to concisely communicate your findings using a voice that your audience would both understand and be inspired by.**