**Nisqually Reach Nature Center**

**Non-breeding Pigeon Guillemot Survey**

**Project Goals:**

To answer the following questions:

* Where do they go in the off-season?

* When do they change plumage?

* When do they return to their colonies?

* When does breeding begin?

**Protocol for non-breeding survey of Pigeon Guillemots**

1. Go to your beach once a month from September through May. To be consistent, try to go about the same time of the month.

1. If you can’t go, please make arrangements for someone to cover for you, otherwise, let us know so we can find a person to substitute.
2. Arrive and begin your survey no later than 8:30AM. You may begin earlier.
3. If the colony is small enough, you can survey from a central location with the widest range of visibility up and down the beach. Otherwise, for larger colonies, it is better to do a walking survey.
4. Spend 15 minutes thoroughly scanning the entire area. Please also record observations of other seabirds in your notes. There is no need to stay on the beach if there are no Pigeon Guillemots in sight. For walking surveys, walk until you find birds, then scan for a few minutes. Repeat until you reach the end of the colony and continue the process to the other end so that you have effectively covered the entire stretch twice.

1. Fill in general information. Record the tide level. Be sure to include +/-. You can use whatever website you like; we like Deepzoom.
2. Note the weather. On the survey form, circle all that apply. If the water is choppy, conditions can be recorded in the other notes section.
3. Count all pigeon guillemots. Note how many are in non-breeding plumage, breeding plumage or intermediate plumage. [**Advanced surveyors** (“expert birders”)] Also note if any juveniles are present.

1. If pigeon guillemots are present, survey for 1/2 hour (including the previous 15 minutes scanning the water) and note if they approach the beach or the bluff, visit the burrows or deliver prey (unlikely).
2. Note any interactions between birds. Examples are courtship behavior, mating, synchronized flying, water games.
3. Take photos of each site in the colony (if accessible) to document habitat changes over the course of the non-breeding season. Send photos to Terence.
4. Record habitat observations (bluff sloughing, new burrows, burrow use, and human activity).
5. Record all bird species and number of individuals observed. If you cannot identify down to species level, record as follows: Gull (sp). If you are unable to identify at all, please record a description of the bird in notes and include shape, size, bill [inc. color, length (short, med, long), color/pattern, etc. Include anything that could help.
6. Submit your data and photos electronically on ASAP here: [**https://arcg.is/1SGS9q0**](https://arcg.is/1SGS9q0)

Or email your survey form and pictures to terencelee@nisquallyestuary.org

Or mail a hard copy to:

Terence Lee

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