

2021 Pigeon Guillemot Monitoring Project

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Introduction

Pigeon guillemots (*Cephus columba*) have been used as an indicator species of nearshore ecosystem health in the Salish Sea for many years (Puget Sound Partnership www.psp.wa.gov/vitalsigns/birds.php). This monitoring effort was initiated on Whidbey Island in 2009, expanded to South Puget Sound in 2013, and a pilot project started in Clallam County in 2015. Beginning in 2016, Clallam County Marine Resources Committee (Clallam MRC) adopted this effort as one of its citizen scientist monitoring projects. All of these regional monitoring programs have continued as annual efforts, and in 2019 was expanded to Kitsap. This regional program, Salish Sea Guillemot Network (<http://www.pigeonguillemot.org/>), is part of the Puget Sound Ecosystem Monitoring Program's Marine Birds Workgroup.

2021 Effort

In 2021 the recruitment campaign was once again impacted by Covid-19, preventing any in-person promotion and training. Recruitment was posted on the Clallam MRC Facebook page and website. Several hundred people were reached through Facebook and many people engaged in the post. Olympic Peninsula Audubon Society (OPAS), co-sponsor of the project, also posted the recruitment information on their website. The online training included the history of the program and explanations on the monitoring protocols and field data forms. The training was available at this link: <http://www.pigeonguillemot.org/2021-survey-tool-box.html>. Over 20 new and returning volunteers from the MRC, OPAS and local residents led or assisted with the surveys (Table 1). New volunteers were teamed up with experienced volunteers whenever possible.

Volunteer teams began monitoring colonies on the week of June 7th. Six geographical areas were monitored in 2021 including Bachelor Rock, Port Angeles (Crown Park), Dungeness Spit, Port Williams, and Mussel Beach (Figure 1). John Wayne Marina and Panorama Vista were not monitored in 2021 since birds were not present. Due to the length and complexity of area Port Williams was divided into 9 sites. The last site monitored was performed mid-September.

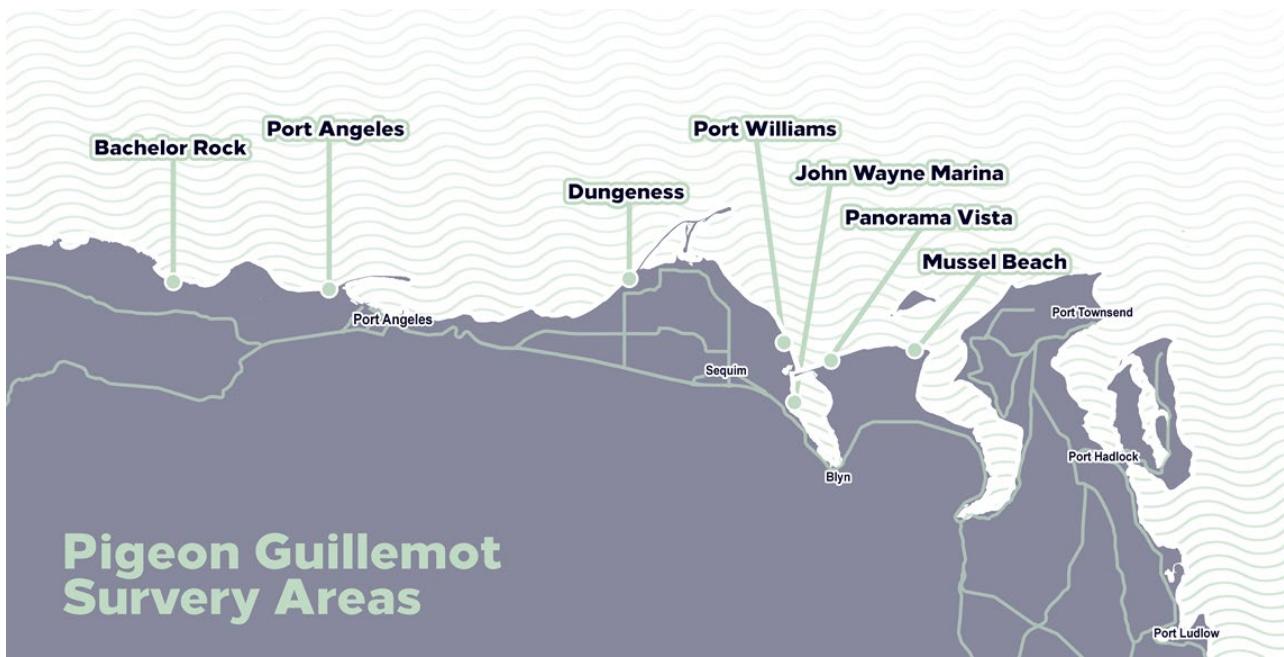


Figure 1. Pigeon guillemot colony monitoring sites for Clallam County in 2021.

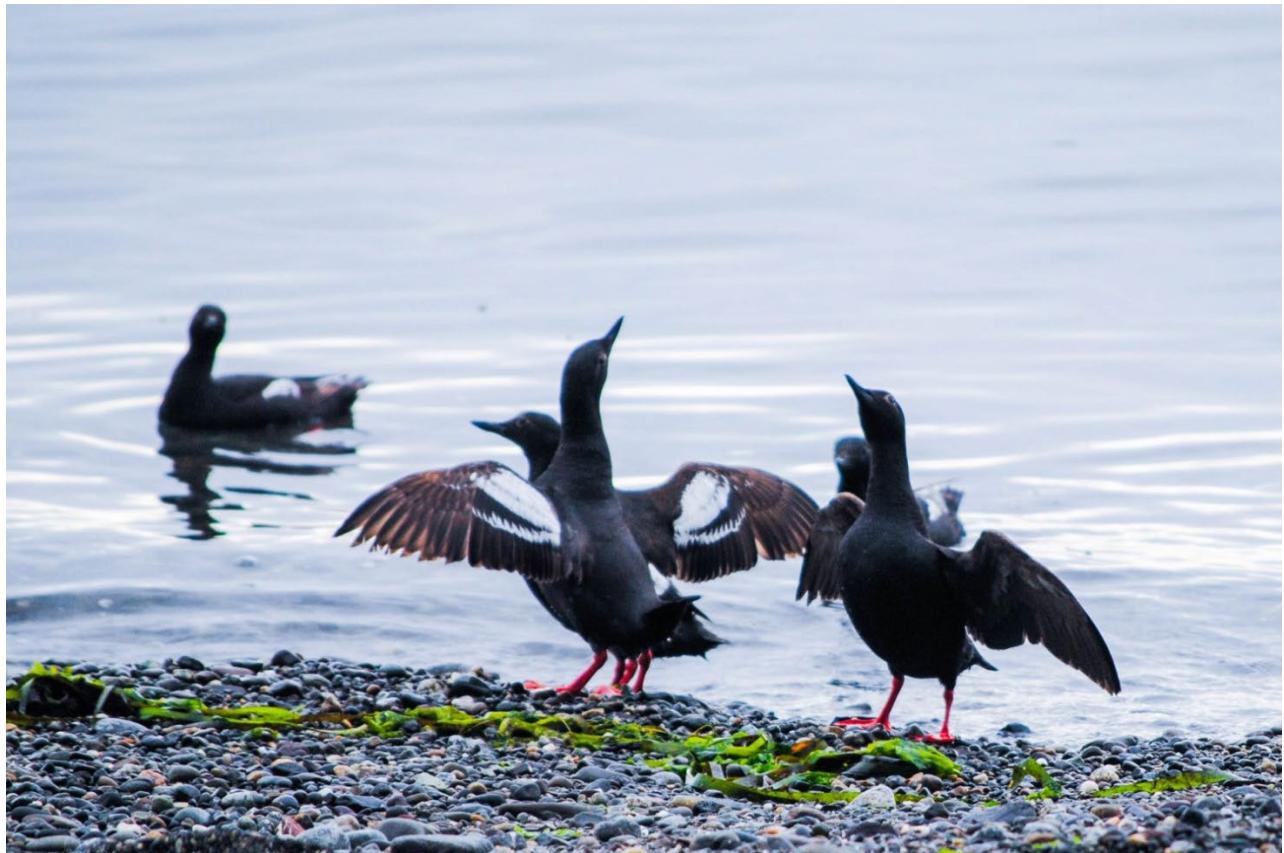


Figure 2. Pigeon guillemots at Port Williams beach.

Table 1. Pigeon Guillemot Volunteers 2021

First Name	Last Name	E-mail Address	Phone	Site
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 0, 1.5, 2 Lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 2
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	BR lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 1.5
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 4 Lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	DS Lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	DS Lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 0 Lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 1
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 0
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	BR
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 1
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 4
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 1 Lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 3 lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	BR
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	MB
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	MP
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 0.5 Lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 0.5
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 2.5 Lead
[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	PW 3

Standardized protocols were followed (Data sheet attached) revised in 2021 to better accommodate population modeling by University of Washington PhD candidate Amanda Warlick and the Washington Department of Fish and Wildlife's new database, Survey123. This regional collaborative effort included not only volunteer monitors in Clallam County, but also Whidbey Island, South Puget Sound and new sites in Kitsap. Clallam field data sheets are shown in Appendix A. The monitoring datasheets are provided in separate files.

A student fellow, Alisa Taylor performed the online data entry into the regional database (Survey123), which can be accessed at: <http://pigeonguillemotdata.org/clallam/2021/>

Acknowledgements. We wish to thank all of our dedicated volunteers for their citizen science monitoring efforts in 2021; our co-sponsor, Olympic Peninsula Audubon Society; and the continued collaboration of Frances Wood of the Guillemot Research Group. Also to recognize is Alisa Taylor for the data entry. Supplemental funding from the Northwest Straits Commission helped to make this another successful monitoring year.

Appendix A