Pigeon Guillemot Breeding Survey

Salish Sea Guillemot Network

2022 Season

Preliminary Data Results (5 October 2022)

Study Sites

Salish Sea Guillemot Network

Our survey has grown to seven survey regions that encompass nine counties bordering the Salish Sea.

- Whidbey Island (2008-2022)
- South Sound (2013-2022)
- Clallam County (2016-2022)
- Vashon Island (2018-2022)
- Camano Island (2020-2022)
- Kitsap-Bainbridge Island (2020-2022)
- Jefferson County East (2021-2022)

How is what we do important *scientifically*?

(and we get the opportunity to experience summer mornings with friends or alone, on beautiful beaches with a wonderful bird)

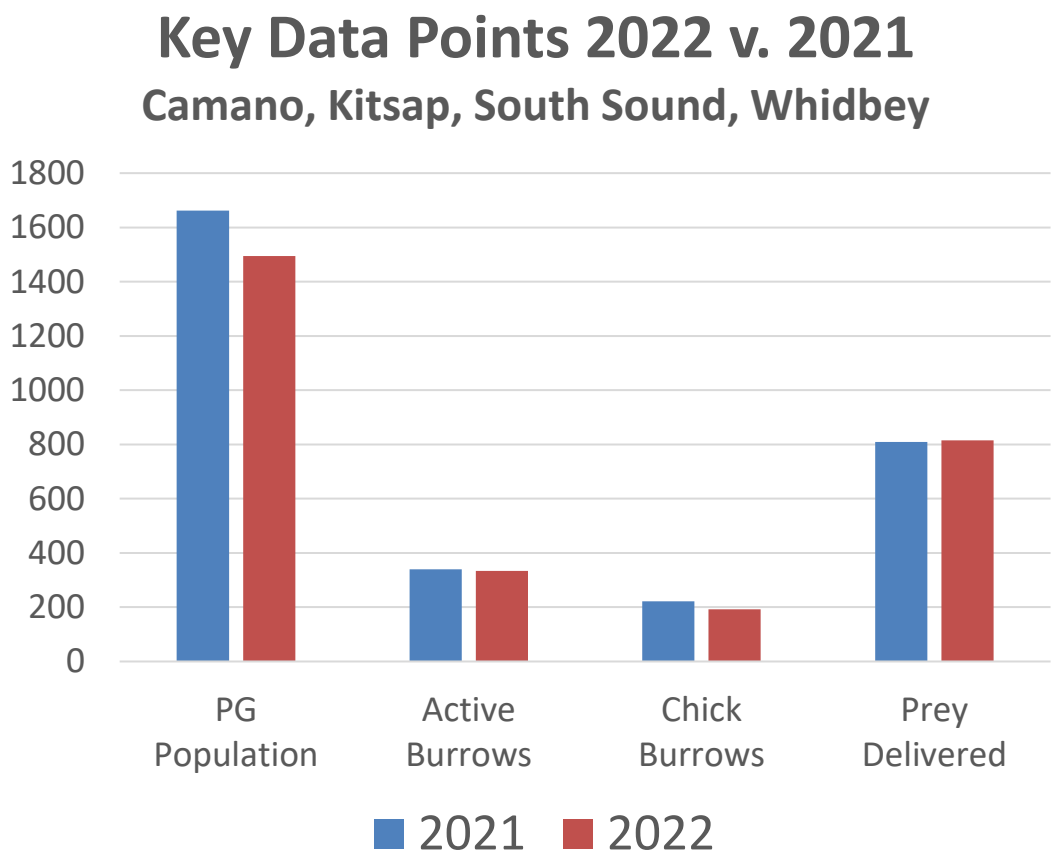
The Puget Sound Ecosystem Monitoring Program (PSEMP) has identified the Pigeon Guillemot as an indicator species. Its conservation status informs us about the health of the Salish Sea. The following data are important to this effort.

- The overall PG population:
  - The high count at each colony is summed to calculate the PG population for the Region.
- The percentage of the PG population attempting to breed:
  - A PG entering a burrow identifies an active burrow, and we identify this as an attempt to breed.
- The percentage of the PG population producing chicks:
  - A PG entering a burrow with prey identifies a chick burrow and is considered a successful breeding.
- The number and types of prey:
  - Gunnel, sculpin or “other”.

Who Uses Our Data?

- University of Washington researchers
- Puget Sound Ecosystem Monitoring Program (PSEMP): PSEMP Marine Birds Work Group
- Washington Dept of Fish and Wildlife: Marine Birds Database

Reporting Regions - Key Data Points 2022 v. 2021



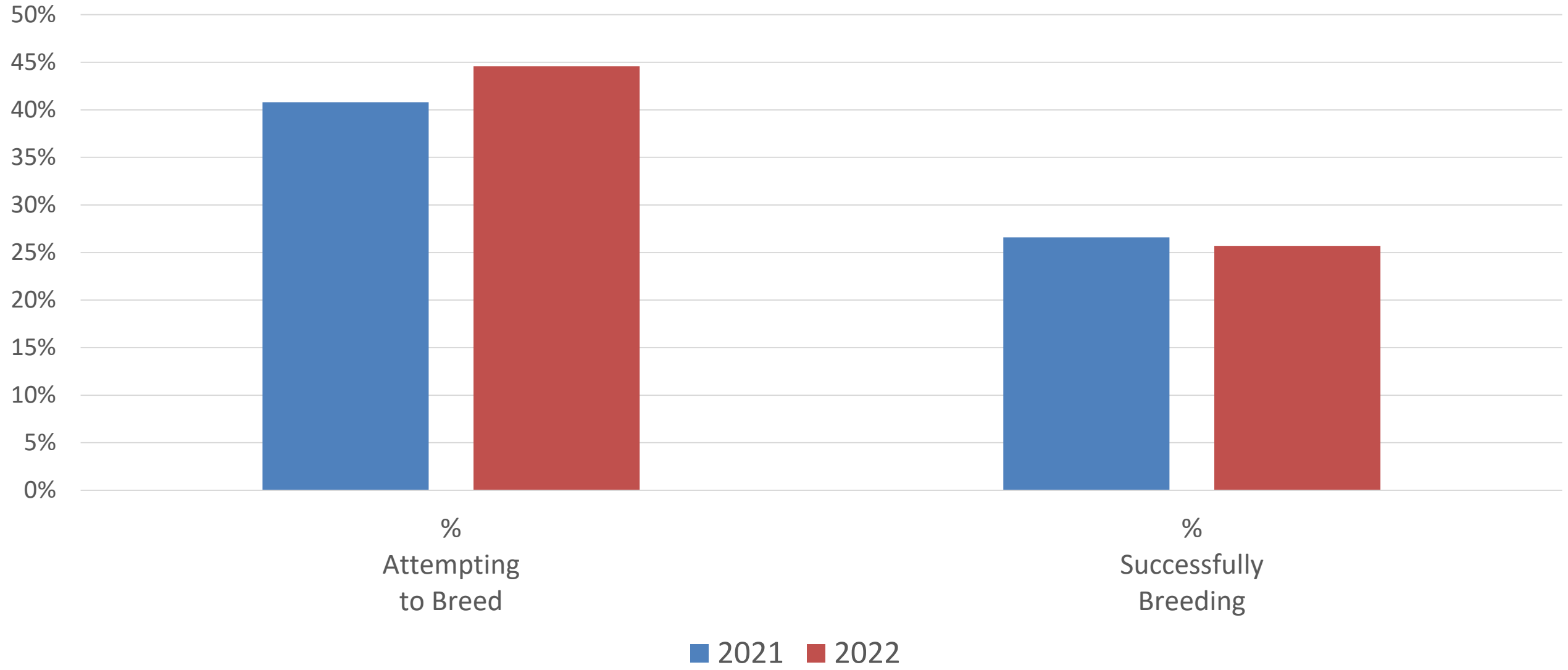
	PG Population	Active Burrows	Chick Burrows	Prey Delivered
2021				
Camano	35	14	11	25
Kitsap-Bainbridge	75	17	13	31
South-Sound	378	81	54	198
Whidbey	1174	227	143	555
Sums 2021:	**1662**	**339**	**221**	**809**
2022				
Camano	37	9	9	40
Kitsap-Bainbridge	76	13	13	68
South-Sound	239	78	33	121
Whidbey	1142	233	137	586
Sums 2022:	**1494**	**333**	**192**	**815**
% Change from 2021:	**-10%**	**-2%**	**-13%**	**1%**

Breeding Success - 2022 v. 2021

Camano, Kitsap, South Sound, Whidbey

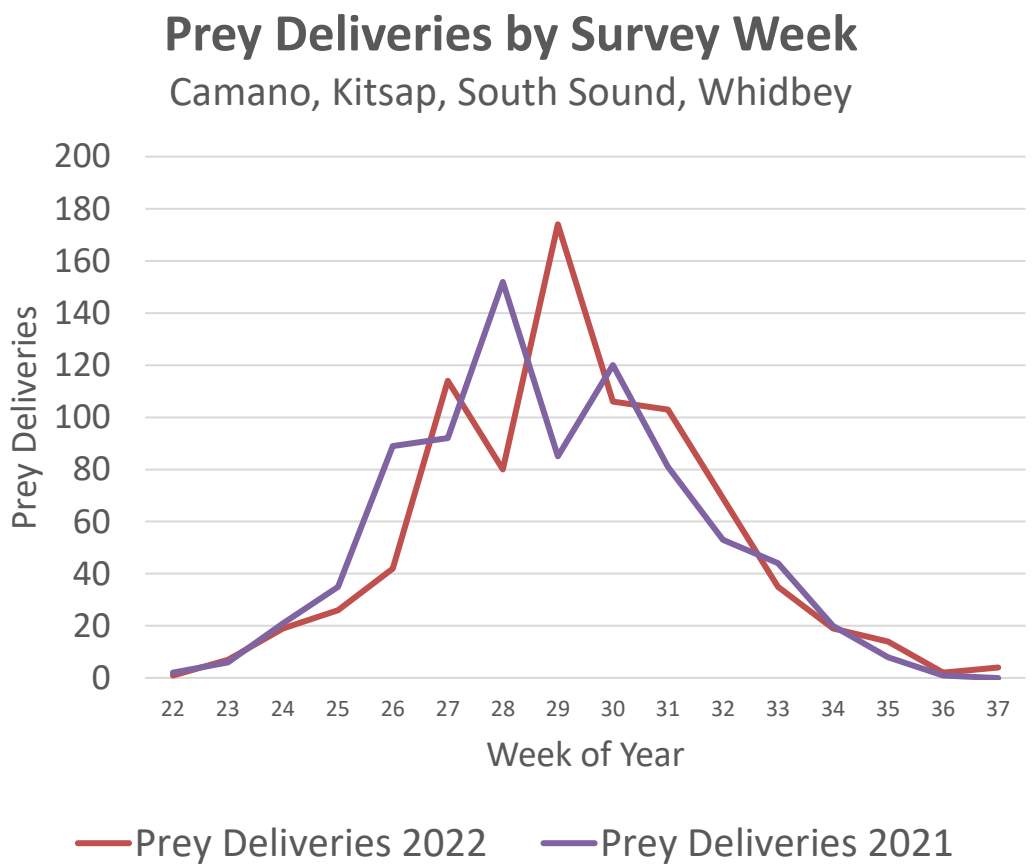
% Attempting to Breed = 2 x # of Active Burrows / PIGU Population

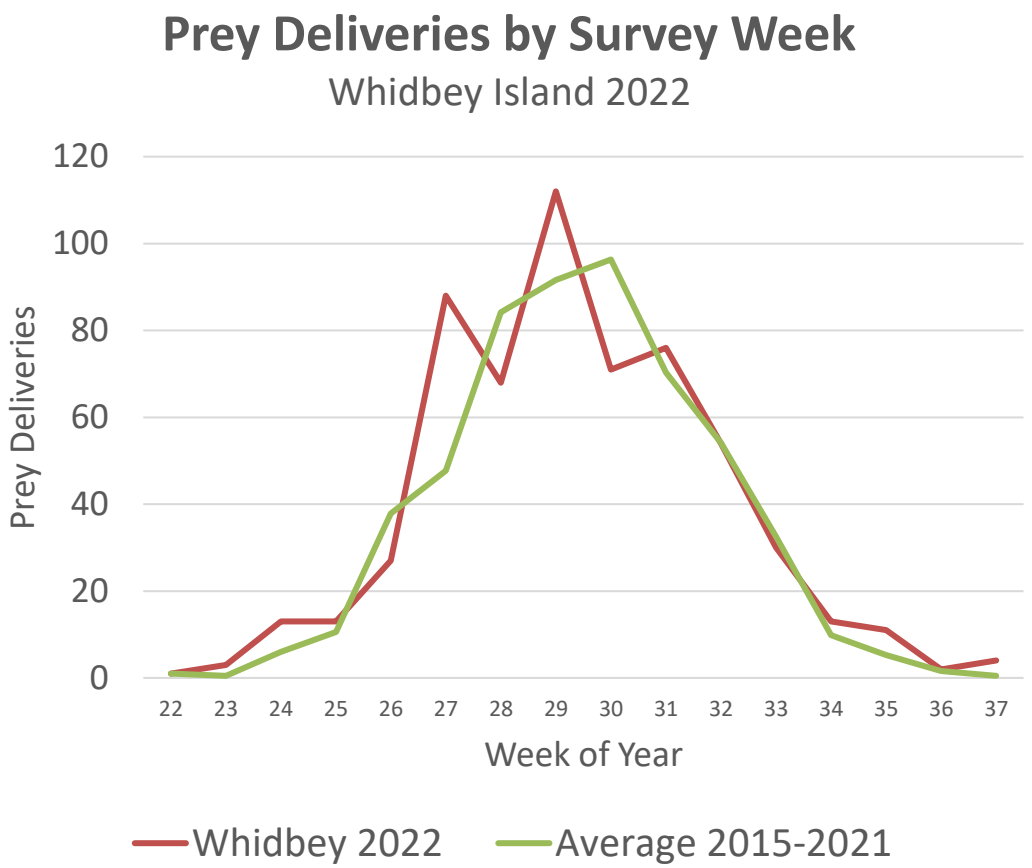
% With Chicks = 2 x # of Chick Burrows / PIGU Population



What does prey activity look like over time?

(Week 29 started on July 17th this year.)

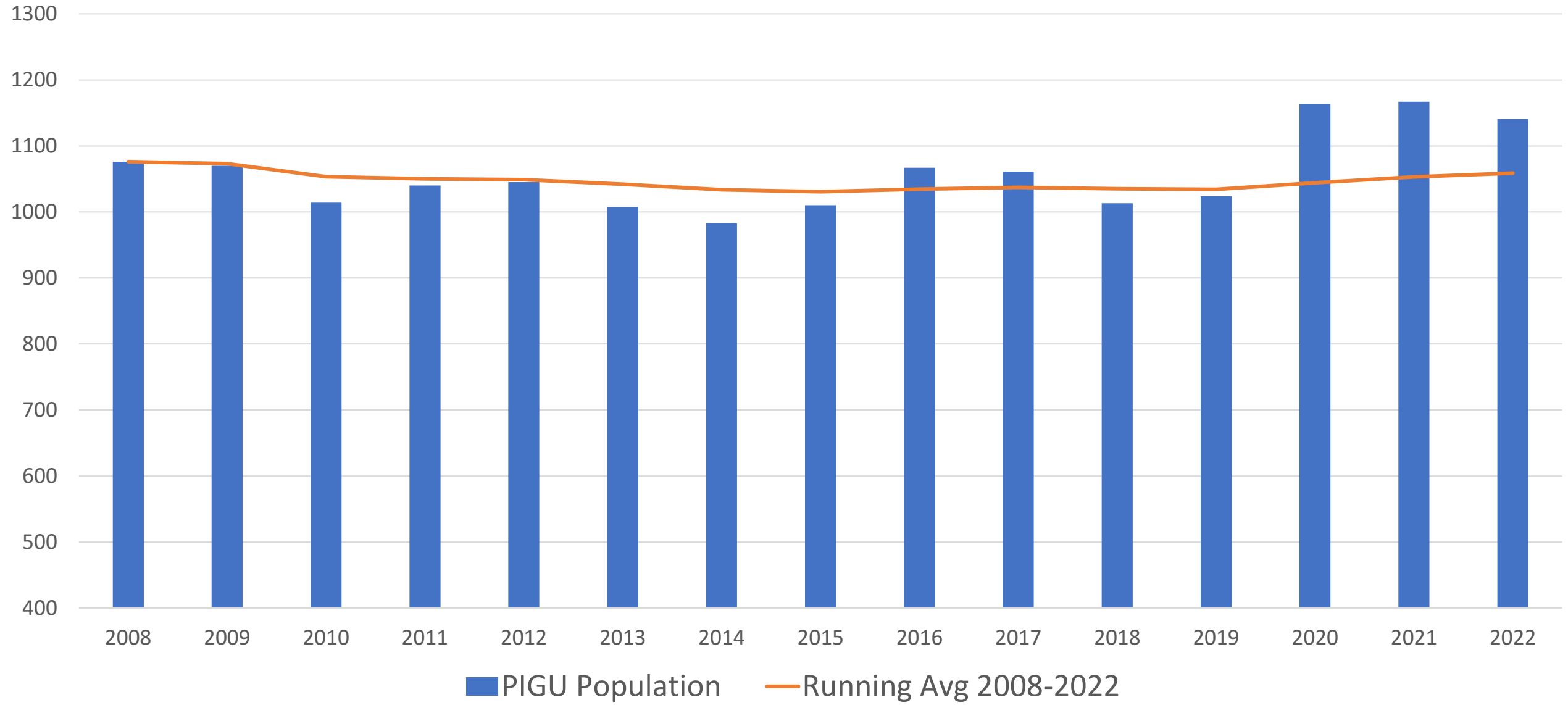





Pigeon Guillemot Colonies of Whidbey Island
Cliffside
Swantown
Hastie Lake
Monroe Landing
Rolling Hills
Forbes Point
Maylor Point
Coupeville Wharf
Harrington
Shangri La
Fort Casey
Keystone
Ledgewood
Hancock N.
Pratt's Bluff
Lagoon North No. 1
Lagoon North No. 0
Lagoon South
Bush Point
Malmo Bluff
Shore Meadows
Mutiny Sands
Limpet Lane
Double Bluff
Langley
Clinton Ferry Dock
Glendale
Possession Point
See Map Here

PIGU Population

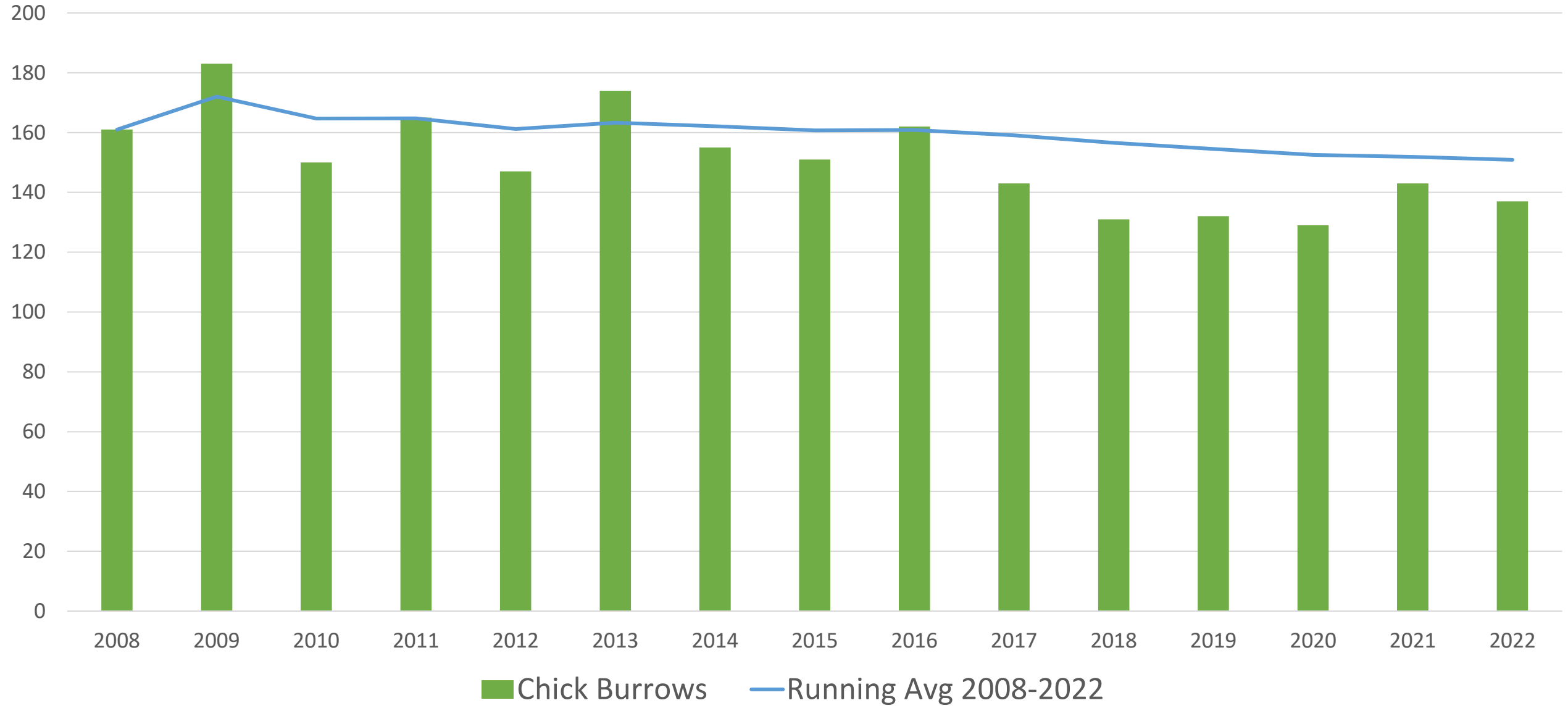
Whidbey Island Survey 2008-2022
(With Running Average)



Number of Chick Burrows

Whidbey Island Survey 2008-2022

(With Running Average)

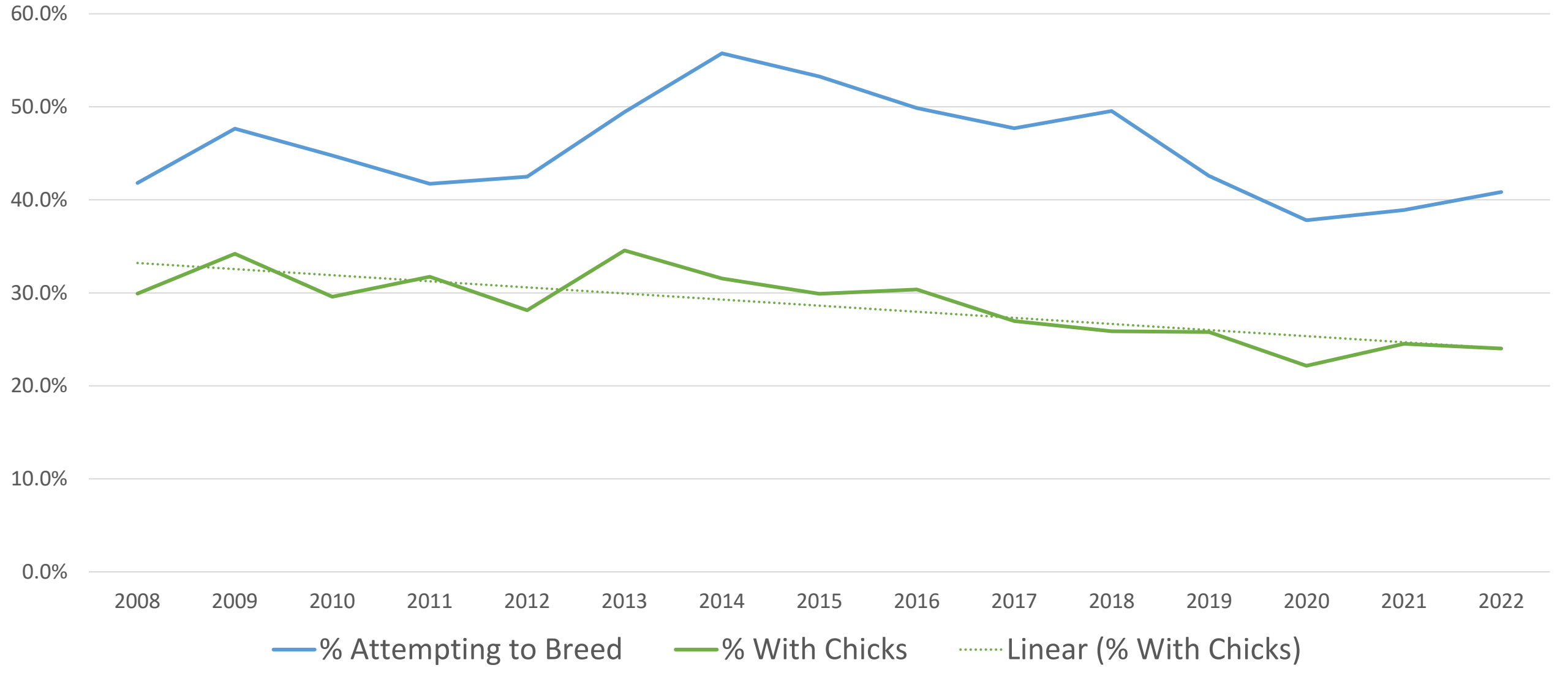


Breeding Data

Whidbey Island Survey 2008-2022

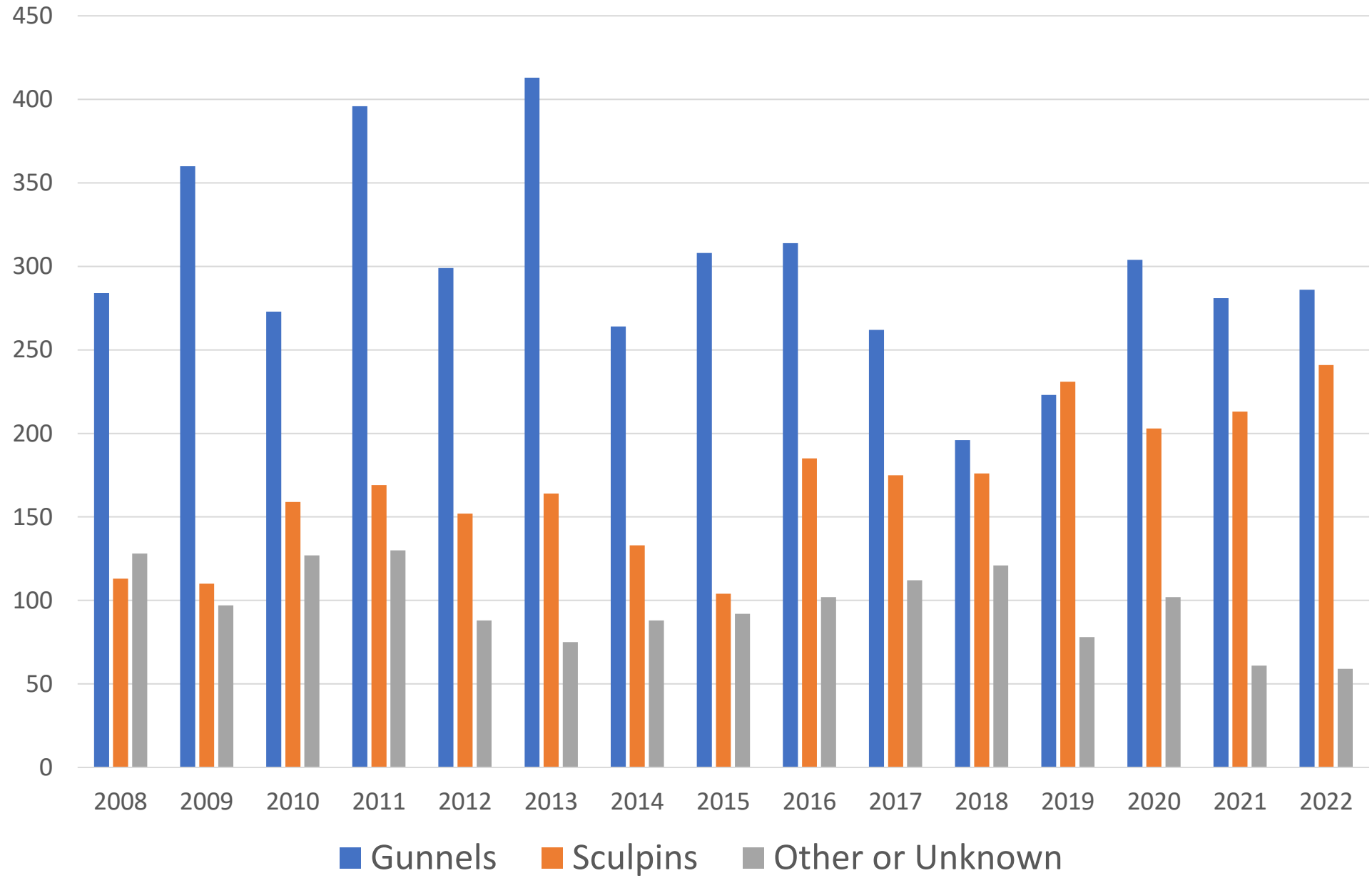
% Attempting to Breed = 2 x # of Active Burrows / PIGU Population

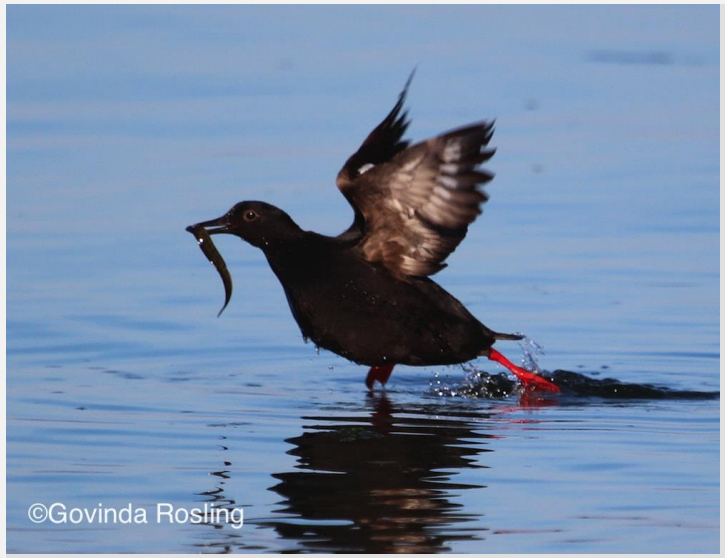
% With Chicks = 2 x # of Chick Burrows / PIGU Population



Type of Prey Delivered

Whidbey Island Survey 2008-2022





A few factoids

- Total prey deliveries: 815 (compared to 809 in 2021)
- Season high count for prey deliveries to a single burrow: 15!
  - Burrow 3 at Battle Point, South Sound (3 surveys)
  - Burrow B1 at Lagoon Pt North, Whidbey Island (5 surveys)
- Colonies surveyed: 44
- Total surveys: 496
- Volunteer hours: 3564

Take-aways

(With the caveat that results are preliminary.)

Overall, it appears to be another successful year for our Salish Sea PGs, without any particularly worrisome signs.

- The overall PG population numbers appear healthy.
- The percentage of the PG population producing chicks is still a bit lower than historically noted.
- And at Whidbey the greater reliance on sculpin relative to gunnel, over historical ratios, continues.
- The information illustrated by charts and graphs raises questions. But the charts and graphs don’t answer them. That takes research.