

Salish Sea Guillemot Network FAQ

PIGU Biology

Q: Where do adult Pigeon Guillemots eat their food?

A:

Adult birds swallow their food underwater to avoid other birds stealing their prey. If you see a bird surface with fish, it's likely intended for young in the nest.

Q: Do Pigeon Guillemots change their behavior due to tides and/or time of day?

A:

We conduct surveys in the mornings because activity at burrows and colonies is undoubtedly higher. Evenings are also a busy time at colonies, with increased burrow visits and general social behavior.

Tides and weather also have influences on behavior, but this is very dependent on location, time of year, and a multitude of other factors. Many sites report higher burrow visits during higher tides. Ultimately, our project has not actively studied this question though it's a very interesting one.

Q: How do young pigeon guillemots leave the burrow?

A:

When Pigeon Guillemots fledge (leave the burrow, they cannot fly, so they tumble and flutter from their burrows and, once they reach the beach, they scramble to the water's edge as quickly as possible. This is often done under the cover of darkness to avoid predators when they are vulnerable on land.

Q: Do parents feed fledglings once they've left the burrow?

A:

No, once a youngster leaves the burrow and heads to the water (typically in the evening to avoid predators) they are on their own for food. Because they cannot fly for 2-3 weeks, they float off-shore, moving at the will of tides and currents. As they learn to feed for themselves, they will often bring their prey to the surface to subdue it before eating it.

Q: How do you tell fledglings and adult Pigeon Guillemots apart?

A:

When fledglings leave the burrows, they are over all brownish gray. Some are mostly dark colored and some have already begun to molt into their lighter more mottled fall and winter plumage. By mid-fall all the fledglings take on a mottled grey and white appearance, which they retain until spring molt.

Also, in the fall adult guillemots begin to molt into their winter plumage, giving them a more mottled appearance as they transition into non-breeding plumage. Non-breeding adult guillemots are mottled above and pure white below. They retain the black wing color and that distinctive white wing patch throughout the year.

Distinguishing fledglings from adults in the fall is challenging due to the variability of plumages in young birds and the individual timing of molt with sub-adult and adult birds. However, most adults are typically less mottled when fledglings are nearby on the water. The images below are useful comparisons.



Adult Pigeon Guillemot in transition to winter plumage (left) and a juvenile Pigeon Guillemot showing more mottled coloration (right).

Counting PIGU and Burrow Visits

Q: Do we count every pigeon guillemot we can see - even ones far offshore?

A:

No. Only count birds that are associated with the colony. (Do not count distant birds.) There is typically a dependable group that hovers near the shore opposite the burrows. This group may spread out and move offshore or leave entirely because of a disturbance, but they return to the colony once the disturbance has passed. The number of guillemots may decrease as the birds fly off to forage and increase as “neighboring” guillemots wander through the area.

Also count all the guillemots that you see on the beach, flying above the colony, on ledges on the bluffs and even standing guard outside a burrow.

Q: How do we count all the birds at a site with multiple observation points?

A:

From the data sheet manual:

For Beaches With More Than One Observation Point If your beach has surveyors positioned at multiple observation points:

- Before leaving the beach, apply your documented process to determine the combined maximum PG count for each count period.
- Before leaving the beach, deconflict any observations noted by volunteers from more than one observation point to avoid double counting prey deliveries or other errors.
- Prepare a summary field card that captures the observations from the volunteers from all the observation points. This is the official copy.

Q: Two birds enter the burrow at the same time. Is this one or two visits?

A:

This counts as two visits, one visit per bird.

Q: A bird enters the burrow but doesn't leave within the survey. Does it count?

A:

Only count birds you can see. If a bird enters the burrow while you are counting, do include it. But as soon as it is inside the burrow, we do not count that bird. This is mainly

because there is no way for us to know how many birds are in burrows at any one moment and therefore cannot include them.

If you observe a bird leaving a burrow, you can tally that as a “No-prey” visit to a burrow. However, if you have already tallied the visit when the bird entered the burrow, you do not count it twice.

Q: Do we count a burrow visit if a guillemot is sitting on a ledge and investigating/poking its head into the burrow opening?

A:

Only count a visit if the bird disappears into the burrow and stays in for at least a moment. When we count burrow visits without deliveries we are attempting to confirm if a burrow is active and after several visits without prey early in the season, we are able to consider that an active burrow. Guillemots may sit in front of a burrow and investigate (without fish), but this is not considered a visit.