This is a bird.

The basics

* The bird lives in this big place, ranging from CA to AK
* There isn’t a lot known about winter habitat, but we do know that they nest in cliffs from late spring through summer all along rocky coasts, offshore islands, and inland seas
* Breeding age at 3-5, total survival = 4.5? (check)
  + Males arrive to breeding colonies first to establish territory
  + Nest and pair fidelity
* Aggregate in the water adjacent to cliffs while alternately foraging (generally at low tide) and tending nests (generally more during high tide)
  + Proportion of aggregating individuals are non-breeders and disperse as the season progresses
  + Equal m/f tending roles during ~30d incubation period

Chick provisioning and foraging; PG have some unique life history traits that have been the subject of debate and ecological theory-testing, with the most important points/outcomes being that environmental conditions – primarily prey availability – matters, a lot.

* PiGu are one of the only (the only, check this) alcid that lays double clutches, particularly rare for in-nest hatchlings
  + The theory goes that this works because they are nearshore foragers,
    - Evidence of more successful with lipid-rich, but it is also about frequency and prey size, and most importantly, they choose benthic when pelagics are available, therefore, predictability must be ultimately beneficial
  + And even with this selectivity toward the predictable, they are not insulated from real trade-offs (rest, delivery rates) when resources (or quality nests) are scarce
    - Evidence of reduced prospects for betas
  + Though there is no evidence of reduced success for doubles, …..?

Clutch size aside, env. matters and likely governs initiation date and overall survival

* ENSO, NAO, etc., complexity depending on habitat
* Local processes and interaction of local and basin-wide oscillations

Overall survival for egg, nestling, and adults, though not many survival studies overall, and not many MR datasets

Locally-speaking…

* Patchy distribution
* Historical (and controversial/inconsistent/outdated) abundance estimates
* Tides (does this fit here? or w/ model explanation?)
* Weather, prey avail, water temp…?
* Historical and existing knowledge comes from F and BC/AK and relative species

Indicator species

* Blob, ocean acidification, shifting food webs?