



ARTICLE

Presidio Bee Discoveries Inspire Joy and Concern

Golden Gate National Recreation Area (<https://www.nps.gov/goga/>), Presidio of San Francisco (<https://www.nps.gov/prsf/>)



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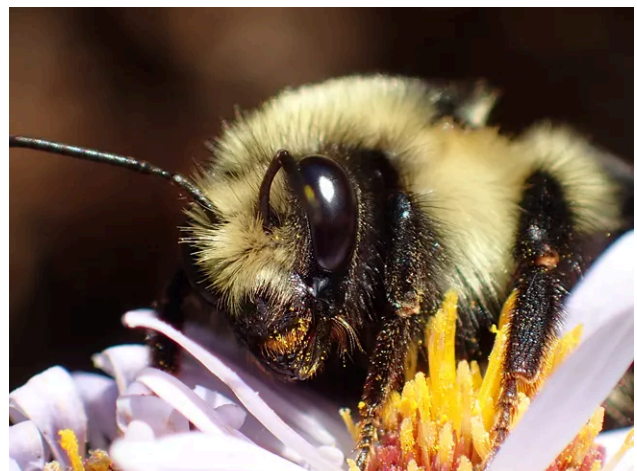
Diony Gamoso / Presidio Trust

April 2020 - Earlier this spring, ecologists made a happy observation in the restored 2-acre patch of dunes at Rob Hill in the Presidio of San Francisco. For the second year in a row, large numbers of locally rare silver digger bees were busily digging nests and visiting flowers among the dunes. But a recently completed inventory revealed that some other bees in the park may not be doing as well.

To thrive, silver digger bees need open sand in which to dig their nests, and a healthy native floral community. The Presidio's restoration of the dunes at Rob Hill created both. Last year, Presidio [staff discovered sizeable colonies](#) (<https://www.nps.gov/articles/rare-bees-return-to-restored-presidio-sand-dunes.htm>) taking advantage of the new habitat for the first time. Whole colonies

had not been spotted in San Francisco in almost a century. The bees' continued presence reinforces their role as a new indicator species for the Presidio. Now that they are established, their presence or absence will be a useful proxy for whether the dune community is staying healthy.

The bee species that has Presidio ecologists more concerned is the yellow-faced bumble bee. This is a common species in the Presidio and the most common bumble bee in San Francisco. However, San Francisco State University researchers recently found that numbers of this species have declined significantly in the Presidio since previous bee inventories in [2004](#) (<https://www.presidio.gov/presidio-trust/press/san-francisco-state-bee-study-at-the-presidio>), and 2008. Declines of common species can be early signals of deeper ecological issues. So Presidio ecologists are working to confirm that the decline in yellow-faced bumble bees is not a seasonal or methodological fluke. They also want to confirm its scale. Are the bees only declining in the Presidio, or are they also declining across the city or across the state? They are exploring options like starting a One Tam-inspired community science bee program. Such a program could also help ecologists keep a closer eye on trends for other common species.



The Presidio of San Francisco is home to several species of bumble bees besides the common but potentially declining yellow-faced bumble bee. This is a black-tailed bumble bee, also a common species.

Jonathan Young / Presidio Trust

Other results from the most recent Presidio bee inventory were mixed. Green sweat bees, another common species known for their showy iridescent coloring, also appear to be in decline. Three other species appear to be increasing in numbers. Bee species diversity rose at some sites, and declined at others. In addition, the researchers did not find many species that had been found before in the Presidio. On the other hand, they recorded 21 new species for the park! Eleven of those were also new for San Francisco County.

For more information

- LeBuhn G and Valenzuela E. 2019. [Bees of The Presidio of San Francisco](https://irma.nps.gov/DataStore/Reference/Profile/2273980) (<https://irma.nps.gov/DataStore/Reference/Profile/2273980>)
- Contact Presidio Ecologist [Jonathan Young](https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=419CD4AE93D48FAC86BE00A6FD1EA4B95488559B12B18389&r=/articles/presidio-bee-discoveries-inspire-joy-and-concern.htm) (<https://www.nps.gov/common/utilities/sendmail/sendemail.cfm?o=419CD4AE93D48FAC86BE00A6FD1EA4B95488559B12B18389&r=/articles/presidio-bee-discoveries-inspire-joy-and-concern.htm>)

[See more from the Bay Area Nature & Science Blog](https://www.nps.gov/rlc/pacificcoast/blog.htm)

(<https://www.nps.gov/rlc/pacificcoast/blog.htm>).



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