

LOS ANGELES RAPTOR STUDY

2026 FINAL REPORT



Great Horned Owl and owlet at Heritage Square. Photo credit: Brenda Rees

Prepared for:

Friends of Griffith Park
P.O. Box 27573
Los Angeles, CA 90027

Prepared by:

Daniel S. Cooper, Founder and Co-Director, Los Angeles Raptor Study
Cooper Ecological Monitoring, Inc.

Nurit D. Katz, Co-Director, Los Angeles Raptor Study
Ecology and Evolutionary Biology Department, UCLA

September 13, 2026

TABLE OF CONTENTS

ACKNOWLEDGEMENTS.....	3
EXECUTIVE SUMMARY	4
1.0 BACKGROUND	6
2.0 STUDY AREA AND METHODS.....	7
2.1 LOCATION.....	7
2.2 SURVEY METHODS.....	8
2.3 CLASSIFYING NEST STRUCTURES AND TERRITORIES	10
3.0 RESULTS.....	12
3.1 TERRITORY OCCUPANCY.....	12
3.2 SPECIES DETAIL.....	18
3.3 RARE SPECIES.....	22
3.4 SINGLE-CHICK NESTS.....	23
3.5 FAILED NESTS	24
3.6 TREE-TRIMMING AND NEST DISTURBANCE.....	25
3.7 RAPTOR MORTALITY, RESCUE, AND REHABILITATION	28
3.8 FUTURE DIRECTIONS.....	30
4.0 LITERATURE CITED	33

ACKNOWLEDGEMENTS

This project was made possible through the vision and support of Friends of Griffith Park, in particular Gerry Hans (President, Science and Conservation). After a brief partnership with the Resource Conservation District of the Santa Monica Mountains in 2025, the study now receives some additional support from San Fernando Valley Audubon Society, for which we thank Pat Bates. Survey volunteers conducted much of the fieldwork, and provided invaluable ecological information that would have been otherwise difficult to obtain. In particular, we wish to thank the following volunteers who tracked nests and submitted data in 2026:

Adam Eeuwens, Adrine Arakelian, Alex Levy, Alex MacInnis, Alex Scholnick, Alexa Morita, Alexandra Zedalis, Alix Bannon, Alix Duggins, Allie Bannon, Allie Brooker, Amir Avishai, Amy Clarke, Amy White, Andrea Cavanaugh, Andrew Garet Moseman, Andrew Lasken, Andrew Moseman, Angela Huff, Angela Woodside, Annie Slagboom, Anthony Kornarens, Arlene Vargas, Audra Wise, Beth Armstrong Shikano, Beth Patrik, Betina Papadeas, Betsy Hunter, Bill Lepler, Brady Wan, Brandon Carrasco, Brenda Rees, Brendon Bouzard, Brent Rumble, Bret Hembd, Brett Boydston, Brian Rawles, Bridget Conlin, Bridget McConaghy, Brittani Alberto-Shaikh, Bryan Shepard, Calliea Pan, Cam Shaw, Cami Iverson, Camille Holmes, Carina Glastris, Carly Creley, Carol Brusha, Caroline Su, Caroline Symons, Carrie Brown-Kornarens, Carrie Fisher, Cary Okmin, Charlotte Swanson, Chip Clements, Chloe Birch, Chonny Hokama, Chris Angel, Chris Hero, Chris Quinn, Christopher Angel, Cindy Holmes, Clare Crespo, Claudia Lowry, Cody Porter, Corrin Yep, Crisanta Velazquez, Cristina Cois, Cyndi Hubach, Cynthia Holmes, Dahlia Shammas, Dan Cooper, Dan Pierce, Dana Cairns Watson, Dante Fierro, David Morales, David Norris, David Shadovitz, Debra Wilbur, Demi Contreras, Diana Wagman, Dorothy Steinicke, Drea Valentine, Drew Wilson, Elaine Kahn, Elinor Nissley, Eliza Shaw Valk, Elizabeth Kennedy, Ellen O'Loughlin, Elyse Meyers, Emily Forscher, Emily Hero, Enya Jiang, Eric Vennemeyer, Erica Horton, Ericka Carrasco, Erika Carrasco, FeiFei Jiang, Fran Tait, Gary Regester, George Young, Gerry Hans, Gicela Galvez, Gideon Ciment, Gina Kelly, Greg Lewolt, Greg Slak, Hannah Johnson, Harry Pallenberg, Heather Wilson, Heide Briggs, Helin Jung, Holly Middlekauff, Hugh Moore, Jack Arthur, Jackie Thompson, Jackson Yean, Jacob Lang, Jaimi Zwerling, James Strzelinski, Jamie Cantor, Janet Fang, Jaqueline Altun, Jaymee Christopherson, Jeanie Lytle, Jeffrey Paul Kaye, Jenn Bastian, Jenn Rose, Jennifer Miller, Jessica Day, Joanne Lin, Joe Swanson, John Gittelsohn, John Jeffrey, Jonathan Daillak, Jordie Oetken, Julia Glassman, Julia Rifa, Julie Hayes, Julie Klabin, Karen Boyarsky, Kari Richardson, Karin Kachler, Kat Halsey, Kate Kingen, Kate Scarborough, Kayla Borkovec, Kaylie Kvoriak, Kelli Hayley, Keri Kilgo, Kevin Cooper, Keymi Ordeñana, Kimberley Rizzo, Kirsten Ushijima, Kristyn Guernica, Laurel Randolph, Laurie MacDonald, Lillian Diaz-Przybyl, Linda Topper, Lisa McCarthy, Lisa Meldrum, Liz Kennedy, Lucia Venegas, Madeline Low, Maggie Perlman, Maile Pingel, Mary Brooks, Mary Shurden, Matt Ramey, Maureen Toth, Meg Favreau, Meg Sinick, Meghan Shearer, Melanie Kaye, Melissa Freeny Young, Melissa Kellogg, Melissa Mills, Merigan Mulhern, Merlin Camozzi, Merris Weber, Mia Picerno, Michael Greening, Michelle Chang, Miguel Gonzalez, Miguel Ordeñana, Mimi DiMatteo, Minhee Kang, Monica Downer, Monica M. Downer, Myeisha Gamino, Nancy Simpson, Nicholas Connon, Nina Beckhardt, Nisi Chun, Olga Bergh, Olivia Clark, Olivia Jenkins, Patti Smentek, Patty Wheeler, Paul Vandeventer, Peyton Bighorse, Philipp Goppert, Pilar Gonzalez, Qing Yi, Randi Parent,

Raphael Kaplan, Rebeca Méndez, Richard Conti, Robert Schwartz, Ron Brusha, Rose Kaplan, Roshan Reporter, Ruth Honegger, Ryan Kinzel, Sarah Leonard, Sari Ciment, Shana Rapoport, Shelley Billik, Shelly Gaytan, Sophia Guttentag, Sophie Kriegel, Stan Thompson, Steve Miller, Steven Goby, Steven Recinos, Suavek Lehmann, Susan Levinson, Susan Raudry, Susan Sterr, Susan Streaser, Suzanne Emerson, Suzanne Kelley, Sydney Fruchbom, Sylvia Walker, Tad Brown, Tate Hastings, Tate Hastings, Tiffany Baires, Tish Simmons, Topper Linda, Tyler Schmidt, Veronica Paneque, Viraj Upadhye, Viviana Jaramillo, Wilson Sherman, Yael Pardess, Yinuo Jiang, Yunhee Min

Stefanie Smith, Griffith Region Superintendent, Department of Recreation and Parks, assisted us with access to several restricted access park venues. Los Angeles City Park Rangers provided patrols and maintained signage and fencing to protect a sensitive Peregrine Falcon nesting site in Griffith Park. Jake Owens, Director of Conservation, Los Angeles Zoo, provided nest data from the zoo locations. Officers Jose Navarro and Armando Navarette and the Los Angeles Animal Services SMART team provided support for challenging re-nesting and rescue efforts, and shared helpful data on new nests.

We are grateful to Leon Boroditsky and Luis Diaz of Recreation and Parks Urban Forestry who provided access to trees for a historic first banding and testing collaboration. Field biologists Joe Papp and Hal Batzloff of Endemic Environmental Services performed the banding under the direction of Bloom Research and Dr. Pete Bloom, internationally acclaimed raptor biologist. Graduate students Ella Eleopoulos and Alexandria Koedel, collected blood samples from the nestlings as part of research that is co-led by Cal Poly Pomona Associate Professor of Biological Sciences Dr. Andrea Bonisoli Alquati and Dr. Pete Bloom. See section 3.8 for details.

In addition, many residents responded to our outreach and shared helpful tips and notified us of local nests, and we thank them for their information and contributions to this study.

EXECUTIVE SUMMARY

In 2026, we launched the tenth year of the Los Angeles Raptor Study. As of August 2026, we have mapped out nearly 800 raptor territories across the study area, representing 259 potential Cooper's Hawk territories (vs. 246 in 2025), 224 Red-tailed Hawk territories (up from 219 in 2025), 67 Red-shouldered Hawk territories (vs. 63 in 2025), 142 Great Horned Owl territories (vs. 136 in 2025), as well as a handful of potential territories of American Kestrel, Peregrine Falcon, Barn Owl and Western Screech-owl. As these modest increases show, these numbers continue to more closely reflect the maximum number of territories in the study area, made more accurate thanks to increased effort and our growing knowledge of local species ecology.

Not all these territories were found to be "active" in 2026 (i.e., with a territorial pair present, or with recently-fledged young detected during the breeding season); the number of *active* territories within the study area for 2026 included 152 Red-tailed Hawks (150 in 2025), 92 Cooper's Hawks (down from 111 in 2025), 39 Red-shouldered Hawks (down from 41 in 2025),

and 41 Great Horned Owls (down from 52 in 2025). As with the total known territories, these declines are likely due to our “maxing-out” our knowledge of the locations of raptor territories in the study area – which was an early goal of the project.

We have re-analyzed territory and productivity for each of the four common species, and again compiled examples of nest trees being severely trimmed (or removed altogether), which – at least for Red-tailed Hawks – may result in a pair completely abandoning its territory. We also more closely tracked nest takeovers, which we had not compiled in the early years of the study.

We again did not re-analyze nest structure re-use, territory distribution by subregion, native vs. ornamental tree use, nor nest phenology (i.e., when chicks first appear, and when they fledge) for the 2026 season, as patterns of each seemed to be similar to those observed in prior years. However, these data are available and could be analyzed.

1.0 BACKGROUND

The “Griffith Park Raptor Survey” was launched in 2017 by Friends of Griffith Park (Cooper et al. 2017)¹, renamed “Los Angeles Raptor Study” in 2021 to reflect the larger study area (see below). By documenting and tracking raptor nests across Los Angeles, we hope to understand how ecological dynamics change from year to year in the natural and built areas of Los Angeles, in particular how human activity is impacting wildlife. While a handful of Los Angeles-area raptor nesting sites had been documented by prior work (e.g., Allen et al. 2017), the data contained in our annual summary reports represent the first comprehensive dataset of an entire raptor community in the urban core of Los Angeles.

Raptors are important apex predators in most of the earth’s ecosystems, and coastal Southern California supports (or once supported) around a dozen breeding species (Garrett and Dunn 1981). Based on recent records (e.g., eBird; www.ebird.org), the study area provides *potentially* suitable nesting habitat for nine resident raptors including Turkey Vulture (*Cathartes aura*), Red-shouldered Hawk (*Buteo lineatus*), Red-tailed Hawk (*Buteo jamaicensis*), Cooper’s Hawk (*Astur cooperii*), Great Horned Owl (*Bubo virginianus*), Barn Owl (*Tyto alba*), Western Screech-Owl (*Megascops kennicottii*), Peregrine Falcon (*Falco peregrinus*) and American Kestrel (*Falco sparverius*). Turkey Vulture has not been confirmed as breeding in the study area in modern times, though suitable conditions exist to support its nesting, and summering individuals are present every year, mainly in the Santa Monica Mountains and western Griffith Park.

Former area nesters include Golden Eagle (*Aquila chrysaetos*) and Long-eared Owl (*Asio otus*), both are rare today at any season. Osprey (*Pandion haliaetus*) is frequently seen through the nesting season (mainly along the Los Angeles River) but has not been documented as nesting in the study area (though spring and summer records appear to be increasing). A handful of species of raptors occur locally or sporadically in migration and/or winter (e.g., White-tailed Kite (*Elanus leucurus*), but nesting has not been suspected as occurring in the study area in modern times.

¹ Dan Cooper (as Cooper Ecological Monitoring, Inc. and with the Resource Conservation District of the Santa Monica Mountains) has been conducting surveys on the flora and fauna in Griffith Park since 2007, when the Griffith Park Wildlife Management Plan (Cooper and Mathewson 2009) first documented the park’s flora and fauna and suggested best management practices for the future, including improved species monitoring.

2.0 STUDY AREA AND METHODS

2.1 Location

Our study area, originally centered on Griffith Park, was expanded in 2020 to include additional portions of the San Fernando Valley and coastal plain that were not covered in prior years. This year, the study area again extended to the 405 Freeway/Sepulveda Pass in the west (with an “extension” to include Sepulveda Basin), Sherman Way/Vanowen Blvd. in the north, Slauson Ave. in the south, and East Los Angeles in the east (see **Figure 1**). As in prior years, a handful of raptor nests just outside this area were monitored by volunteers (e.g., Pasadena and Calabasas), but we did not specifically search for nests in these areas.

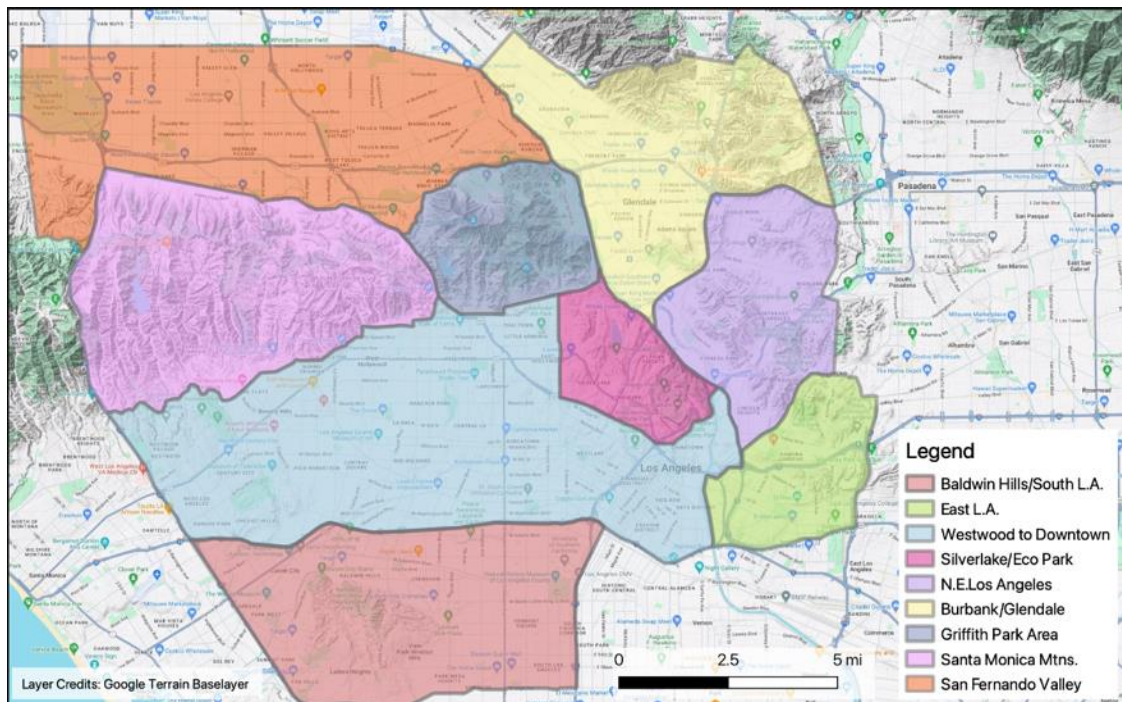


Figure 1. Study area updated in 2025 season. In addition to the areas shown, we monitored a handful of nests outside the study area, but did not include them in the analysis. Map credit: Ahalya Sabaratnam (UCLA IoES Practicum Raptor Team, 2024)

The region’s climate is Mediterranean, with low or no summer precipitation, cool winters, and periods of drought. February sees the highest levels of precipitation with annual average rainfall of 14 inches. Fairly regular El Niño events once or twice per decade can result in much higher annual rainfall amounts, and regular droughts can reduce rainfall to half the normal amount (or less in exceptional years). For example, the year of the project launch (2017) followed an exceptional five-year drought in the Los Angeles area, with each prior year well below average rainfall. However, the 2018-2019 rainy season saw a total of 18.82 inches in the downtown Los Angeles area, 4.09 inches (>20%) above the seasonal average for the area. The 2019-2020 season saw a return to average (14.86 inches), though roughly half of it fell during

March and April (2020), which was unusually late, and which coincided directly with the start of our 2020 raptor nesting season. Rainfall in winter 2020-2021 was less than half that of normal (5.0 inches)², with above-average high temperature spikes in late May and mid-June, coinciding with local raptor fledging. Rainfall in winter 2021-2022 was below average, but not extremely so (12.4 inches)³. Two wet winters then followed, with 2022-2023 seeing exceptionally high precipitation (28.4 inches), and 2023-2024 again a heavy rain season with 25.2 inches recorded in downtown Los Angeles. Winter 2024-2025 was below average, and 2025-2026 above average, by similar amounts. However, the winter prior to the 2025 season was unusual, in that while the total rainfall was about half that of average, the fall (2024) was exceptionally dry, with almost no rain falling until (early) 2025. As climate change continues, these extreme variations may become more frequent. While raptors are not strongly territorial in fall, all of our local species are non-migratory, present year-round in their breeding territories. Thus, anomalies in the fall and winter may well impact breeding the following spring.

As in prior years, while most nests in the study area are on private property (mainly in residential areas), public parklands supported numerous raptor nests, including those managed by the Los Angeles Department of Recreation and Parks (incl. Griffith Park, Elysian Park, Echo Park, Debs Park, and most of the Sepulveda Basin; hiking/open space areas such as Runyon Canyon; and Encino and Woodley golf courses); the Los Angeles Department of Water and Power (Stone Canyon Reservoir, Silverlake Reservoir, Hollywood Reservoir); and Los Angeles County Department of Parks and Recreation (Kenneth Hahn Park). Other local cities in the study area that manage parks with raptor nests including Glendale (notably, Brand Park) and Beverly Hills. In the remaining open space of the eastern Santa Monica Mountains, Mountains Recreation and Conservation Authority manages Franklin Canyon.

We have found local golf courses (various owners) to be important areas for nesting raptors, and our volunteers have gained access to several in recent years. A handful of nests were found on buildings, freeway overpasses, and other built features, which we hope to study more in future years. However, most nesting sites monitored were found in and around single-family homes and yards, and many nests were located in street trees, backyard trees, or along utility easements through residential areas. These street trees are maintained by the various cities in the study area, including Los Angeles, Culver City, Beverly Hills, West Hollywood, Burbank, and Glendale.

In 2026, we resumed coverage of Franklin Canyon (closed in 2024 due to storm damage, and infrequently visited in 2025) . We did not, however, obtain permission to survey Forest Lawn Cemetery-Hollywood Hills..Los Angeles Zoo nest data were provided by Zoo staff.

2.2 Survey Methods

² <https://www.la Almanac.com/weather/we13.php>

³ <https://www.accuweather.com/en/us/los-angeles/90012/may-weather/347625?year=2021>

As in prior years, Cooper, Katz, and Gerry Hans (Friends of Griffith Park) conducted opportunistic surveys in the study area starting in February to document the status of known and suspected new nests and territories, documenting status on a shared Google Sheet. This continued as time allowed through the spring and summer. We attempted to maintain the increased level of coverage afforded to the study area which started in 2020, including regularly checking online platforms such as eBird and iNaturalist for reports of adults and juveniles (the latter particularly evident by June), and visiting the reported areas to track down nests, which yielded several new territories/nests.

As in recent years, Katz posted several announcements and updates of the project to social media (Facebook, Instagram, LinkedIn, etc.) and local NextDoor boards, requesting sightings of nests and raptors. Volunteers were also provided outreach materials to post and share in their neighborhoods. This approach was again fruitful, especially during the end of the Cooper's Hawk nest period when juveniles are loud and visible in neighborhoods. We also again found new nests from receiving rescue calls about fallen nestlings.

Our surveys were performed mostly by foot using 8-10x binoculars, 20x spotting scopes, and "superzoom" cameras to determine nest activity and the presence or absence of raptors. Surveys were timed to avoid undue disturbance to nesting raptors and other birds during the most critical breeding periods later in spring.

We held one virtual (Zoom) training session (January 28, 2026) followed by two in-person field trainings which were well-attended by volunteer "community scientists." The first field training took place in Griffith Park on January 31, and the second in Sepulveda Basin on February 1. By the end of March, we had more than 750 potential raptor territories located, and the volunteers had started their bi-monthly visits. We again held a refresher training with a focus on Cooper's Hawks via zoom on April 8, and in the field on April 12.

As in prior years, we assigned nests to one or more volunteers based on their location preferences and birding ability. Volunteers were asked to visit their assigned nests twice per month (and no more than weekly to avoid disturbance) to identify nesting stages throughout the season, and were asked to complete the data entry form within a week of the visit. Each active nest was confirmed by a project staffer and/by photograph to ensure data reliability and support volunteer training. Staff also met with new volunteers one-on-one in the field for nest orientation, and with existing volunteers if they were assigned a new nest and had difficulty locating it. Data was collected via a Google Form (essentially an online survey), and all data maintained in an online spreadsheet (Google Sheet). GPS coordinates of nests were obtained with the Google Maps or Google Earth apps in the field, or later using volunteers' written descriptions and Google Earth Pro. Coordinates were taken as close to the nest tree as possible, but the accuracy of nest coordinates may vary due to access issues, proximity of the edge of a tree to the nest, or the inability to obtain accurate readings under dense tree canopy. Nest locations are not published to avoid disturbance to nesting raptors and to respect privacy for residential area nests. However, locations were again shared with local government agencies

and select property owners in order to ensure that maintenance and operations of parks did not disturb the nests.

2.3 Classifying Nest Structures and Territories

We largely maintained our definitions and classification of nests and territories solidified in 2020, which accounted for new information learned through our more intensive monitoring and nest-searching that began that year. Thus, we continued our focus on documenting use of *territories* (i.e., not just on physical nests), attempting to determine breeding activity even where we could not locate the nest structure. Definitions used as follows:

- Active (nest) – A physical nest in good condition with at least one individual of the appropriate species engaged in clear breeding behavior at the nest (e.g., nest-building, incubation, etc.);
- Active (territory) – An area with a pair of adult raptors interacting, or with an individual engaged in breeding activity. Also, “active territory” may refer to an area where we noted recently-fledged young clearly produced locally (e.g., with downy feathers, or incapable of sustained flight), even if the nest structure was unknown;
- Fledged (nest/territory) – Evidence of one or more young having successfully left the nest. Typically, this was confirmed by observations of large young in the nest, then an empty nest shortly thereafter, with copious whitewash and down feathers near the nest, and usually with at least one fledgling (dependent on adults and incapable of sustained/smooth flight) in the area. In some cases, a successful nest was identified based on whitewash/down even if no fledgling was observed nearby.
- Inactive (nest/territory) – A likely or known/historical raptor nest or territory in which no breeding activity was observed at any point in the season;
- Abandoned (nest) – A situation where adults (i.e., a pair) were present – usually only early in the season – within the territory at or near a known nest, but where no nesting activity at the nest was observed thereafter;
- Failed (nest) – An active nest that produced no young, but where nesting activity had been observed in the current season, such as incubating adults, suggesting that eggs may have failed to hatch or that young died in the nest;
- Unknown – Ambiguous observations, typically where we failed to revisit a nest in the study year due to scheduling/access issues, or where we felt we did not have enough observations to determine success or status.

In some cases, we identified a territory based on the presence of a single adult, such as an adult Cooper’s Hawk delivering a territorial flight display or a call associated with breeding, but most nests and territories were deemed active by the presence of a *pair during the nesting season*.

As in prior years, we made a concerted effort in “gap areas,” those parts of the study area with no known nests, and confirming active nesting where we (or volunteers) had incidentally

observed raptors exhibiting breeding behavior such as tandem flights, copulation, stick-carrying, etc.

We continued limited surveys and outreach in the West Los Angeles neighborhoods of Brentwood, West L.A., and Mar Vista; these areas are still considered outside our main study area, however.

Generally, we considered *two visits during the nesting season, along with no reported sightings of the target species in the territory that year, as sufficient to consider a territory “inactive”*. However, in several cases, juveniles and even nests were found late in the season in a handful of territories considered inactive, either by intrepid volunteers, or via observations submitted to eBird/iNaturalist, both of which continue to grow greatly in popularity each year since the inception of the study in 2017.

Again, we were able to confirm positive activity within many territories by the presence of recently-fledged young and recently-used nests (particularly Cooper’s Hawks, but now – we realize – for *all* focal species), using clues learned while more closely observing known nests.

3.0 RESULTS

3.1 Territory Occupancy

By early August 2026, we had checked 259 potential Cooper's Hawk territories (vs. 246 in 2025), 224 Red-tailed Hawk territories (up from 219 in 2025), 67 Red-shouldered Hawk territories (vs. 63 in 2025), 142 Great Horned Owl territories (vs. 136 in 2025), as well as a handful of potential territories of American Kestrel, Peregrine Falcon, Barn Owl and Western Screech-owl^{4,5}. As these modest increases show, these numbers continue to more closely reflect the maximum number of territories in the study area, made more accurate thanks to increased effort and our growing knowledge of local species ecology.

Not all these territories were found to be "active" in 2026 (i.e., with a territorial pair present, or with recently-fledged young detected during the breeding season); the number of *active* territories within the study area for 2026 included 152 Red-tailed Hawks (150 in 2025), 92 Cooper's Hawks (down from 111 in 2025), 39 Red-shouldered Hawks (down from 41 in 2025), and 41 Great Horned Owls (down from 52 in 2025). As with the total known territories, these declines are likely due to our "maxing-out" our knowledge of the locations of raptor territories in the study area – which was an early goal of the project.

The rate of discovery of new territories continues to slow, as we run out of new ones to find, and confirm active nests where we just had pairs or sightings of juveniles. In 2026, we found new territories for 13 new Cooper's Hawk pairs (15 were newly found in 2025), 8 new territories for Great Horned Owl (down from 9 newly found in 2025), 3 for Red-tailed Hawk (vs. 5 as in 2025, which was down from 30 newly found in 2024), and 4 for Red-shouldered Hawk (5 in 2025). Most of these territories supported active nests, but a handful were territories in which we found a pair of adults but no indication of nesting (this year); or where we observed recently-fledged juveniles with adults but with no obvious nest structure visible.

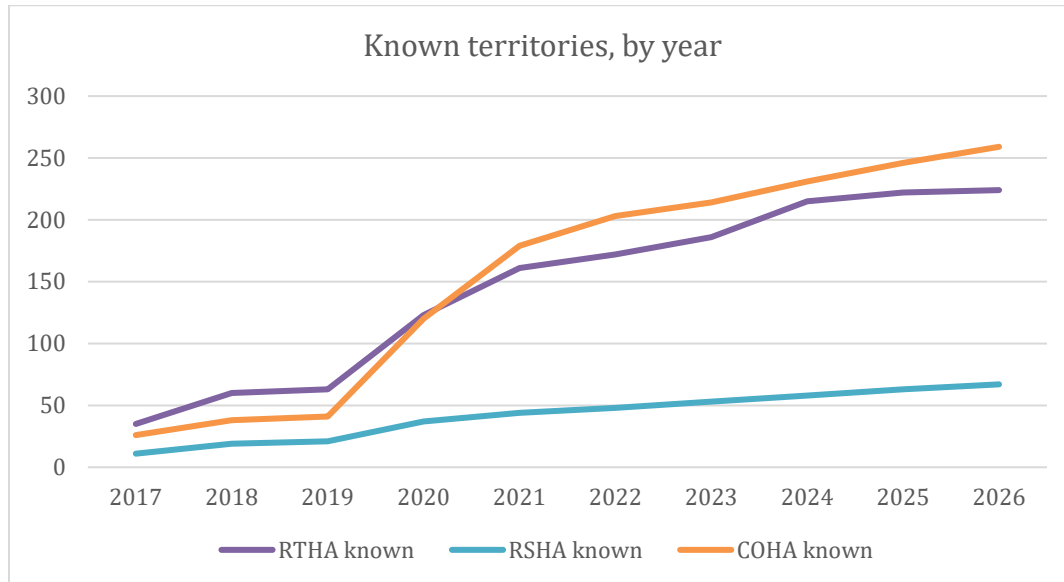
We noted at least 15 cases of "species turnover" at known nests, where one species took over another species' nest; these patterns will be analyzed in a future report/paper.

Comparing all species

⁴ These numbers may differ somewhat from those reported in the 2025 report, owing to further analysis of data from that year. They also do not reflect nests monitored outside the study area, which would add several dozen additional territories. And, since we do not individual mark birds in the study, we cannot say how many of the "new" territories in a given year represent birds from "old" territories that were no longer active.

⁵ As our nest-searching effort increased greatly starting in 2020, the years 2017-19 may be thought of as preliminary compared to the years 2020-present. In particular, we searched for (and located) few urban Cooper's Hawk nests in the San Fernando Valley or mid-City area prior to 2020, before we learned some of the "tricks" to finding them there.

Figure 2a shows the total number of territories known to us each year (Great Horned Owl was omitted, due to the difficulty in confirming territories, except via nocturnal surveys). Our “rate of discovery” for territories of each species has been slowing down, as expected.



Calculating the number of territories confirmed either as active (pair/active nest present) or inactive (no pair or active nest after 2-3 visits) gives an idea of the maximum number of “potential territories” each year (territories where activity was inconclusive, or that were never checked, are omitted from these totals).

As shown in **Figure 2b**, all species showed a jump in 2020, the year we began devoting more time to actually searching for new territories, rather than simply assigning volunteers known ones and finding new ones incidentally. The number of Red-tailed Hawk territories known each year began leveling-off in 2024, while those of Red-shouldered Hawk continued to (slowly) climb each year, suggesting that a handful of Red-shouldered Hawk territories remain to be discovered in the study area (while those of Red-tailed Hawks are largely known).

The pattern shown by Cooper’s Hawk is more complex, and the bimodal pattern observed for this species each year likely tracks the number of *occupied* territories in a given year, which also shows this “wave” pattern across years. Cooper’s Hawk territories are generally much easier to confirm as active than inactive, since adults can be very sneaky and some pairs are rarely observed even in known active territories (as discussed by Rosenfield 2018). In our study, many Cooper’s Hawk territories are only visited once per year to try to catch activity or fledged juveniles (due to our own time constraints), and these are coded as “unknown” (rather than “inactive”) if no activity is found. Thus, a year with few (confirmed) occupied territories will also show a dip in the total *known* territories that year. By contrast, the two *Buteos* (Red-tailed and Red-shouldered hawks) are far easier to confirm as active or inactive due to their size and conspicuous foraging behavior, often requiring no more than a single visit to detect activity; hence, their curves in Figure 2a are relatively much smoother.

For Great Horned Owl (not shown), territories require nighttime visits to confirm as active, which neither we nor volunteers performed.

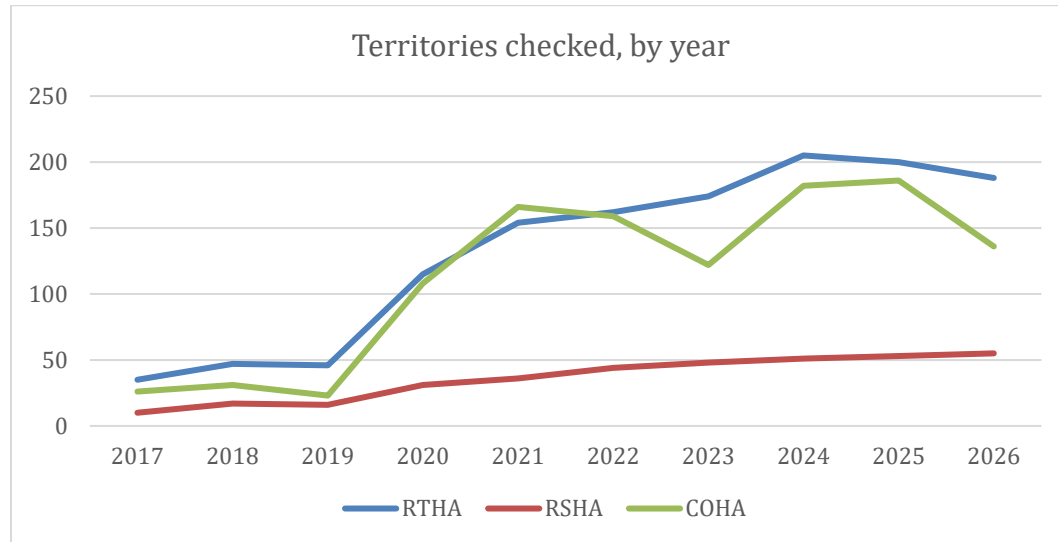


Figure 2b. Potential breeding territories coded as either active or inactive each year, by species (excludes “unknowns”).

Looking at the total number of young fledged each year (all species combined), 2026 was much lower than the year prior, and just below the 6-year average of 435 (**Table 1**). These results are discussed further below (“Species Detail”).

Table 1. Total number of young produced (either confirmed fledged young, or nestlings close to fledging), 2020-2026.

Species	2020	2021	2022	2023	2024	2025	2026
Red-tailed Hawk	189	204	124	164	248	198	179
Red-shouldered Hawk	28	27	24	30	45	36	46
Cooper’s Hawk	131	139	129	166	183	207	148
Great Horned Owl	35	38	49	67	90	73	47
Total	381	408	327	429	556	511	420

Overall nest productivity rate, as measured in the mean number of chicks hatched from active nests (excluding failed/abandoned nests), was the lowest yet (1.86 chicks/nest), which had averaged 2.1 chicks per active nest (range 1.95 – 2.4) since 2017.

As shown in **Figure 2c**, Cooper's Hawks continue to consistently fledge the highest mean number of chicks per (successful) nest⁶ of each of the four focal species, with an average of 2.4 young from 2020-2025. Red-tailed Hawk and Great Horned Owl have been similar (c. 2 young/nest), with Red-shouldered Hawk showing the lowest value (1.7 young/nest).

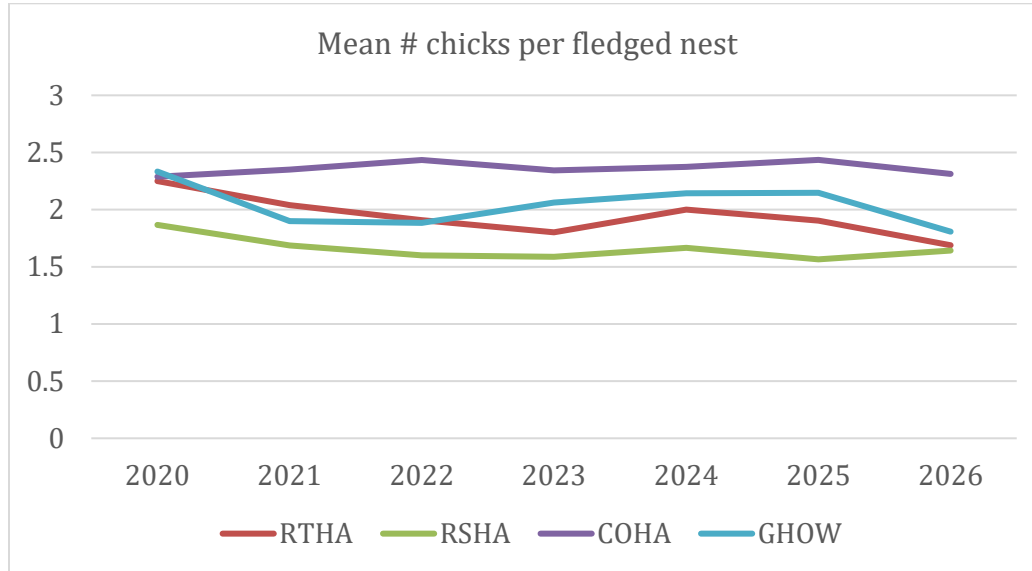


Figure 2c. Mean number of chicks per fledged nest⁷, 2018-2026.

The proportion of active territories that fledge young each year for all species is another way of measuring breeding success, and we summarize this for the three hawk species in **Figure 3**. A convergence of fledging rates occurred in 2020 and 2024, though in other years (including 2026), these rates differed by species, though unpredictably so.

⁶ Apparently failed and abandoned nests were omitted from this analysis (i.e., those with a chick/fledgling count of zero). Including these was problematic, since we were frequently unsure if a given pair attempted to breed and produced no young, or bred somewhere else, or bred in the territory and we (or our volunteers) simply failed to find the young. And, our assessment was frequently dependent on effort and observer skill, which varies. Thus, we took a conservative approach and have only included nests with one or more young to assess productivity, and only looked at those from 2020 on (see explanation above).

⁷ We include nests with large chicks that were last checked when nearly fledged, as well as confirmed fledged chicks (due to the difficulty of confirming fledging at all nests in the study with so many nests being monitored).

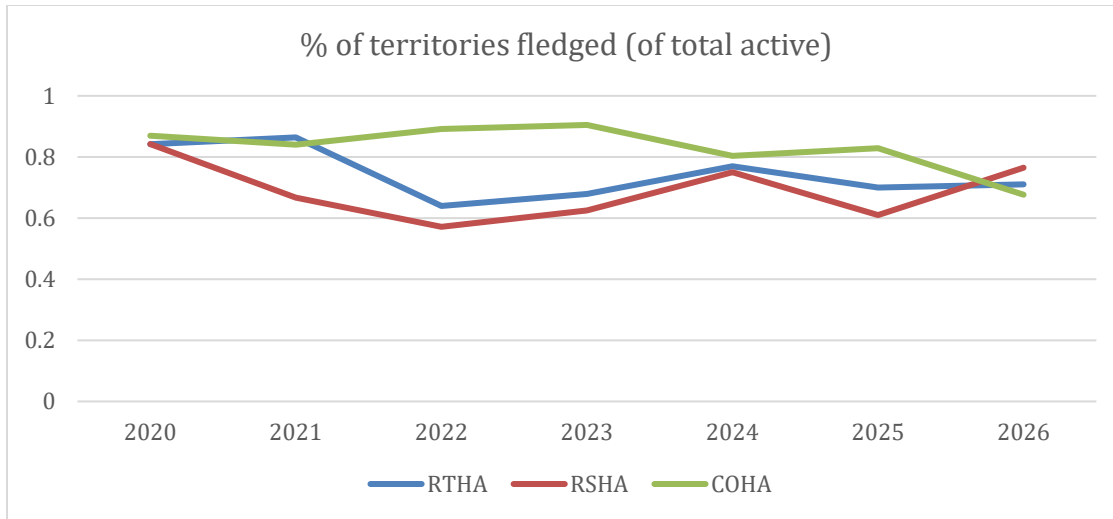


Figure 3. Proportion of territories that fledged young for each species, 2020-2026.

Re-occupancy rates of active territories year to year for the three focal hawk species are presented in **Figure 4** (such data were incompletely collected for Great Horned Owl, and other species had very low sample sizes, so are not included⁸). These rates appear to be smoothing out as we continue the project, likely due to our increased effort to confirm territory activity and fledging for *all* territories (not just known nests) well into summer, which we did not always do during the early years of the study.

Overall, territory re-occupancy rate continues to be highest for Red-tailed Hawk (mean 85%) as compared to Red-shouldered Hawk (76%) and Cooper's Hawk (53%), looking at data from 2018-2026. Great Horned Owl territories have averaged around 50% re-occupancy since 2020; however, these require special effort (i.e., nocturnal surveys) to confirm activity, so are not included in the figures due to unreliability of the data.

⁸ Due to their cryptic behavior, we made no effort to search for Great Horned Owl territories, and most nests found were occupied by an incubating adult or young, hence skewing the nesting territory re-use/success calculation.

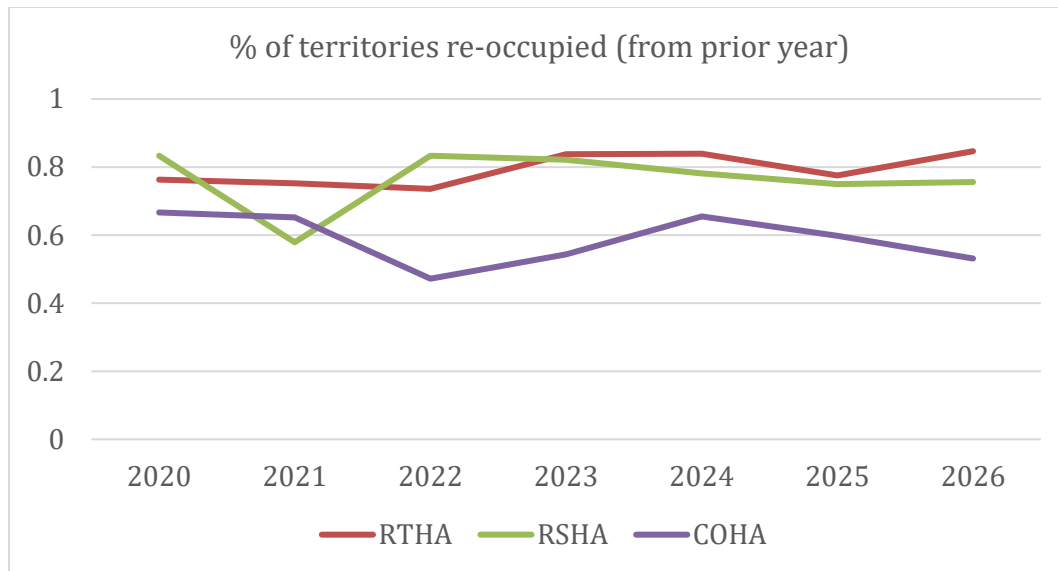


Figure 4. Annual re-occupancy rates of territories for the three focal hawk species, 2020-2026.

Trends in year-over-year breeding *success* (as measured by pairs that fledged young in both the prior *and* the current year) appeared to converge in 2025, owing largely to a dip in re-occupancy rate of Red-tailed Hawk territories, but then resumed what appears to be a normal pattern, with the two *Buteo* species varying similarly, and Cooper's Hawk territory re-fledging rates lower, and showing a different pattern (**Figure 5**).

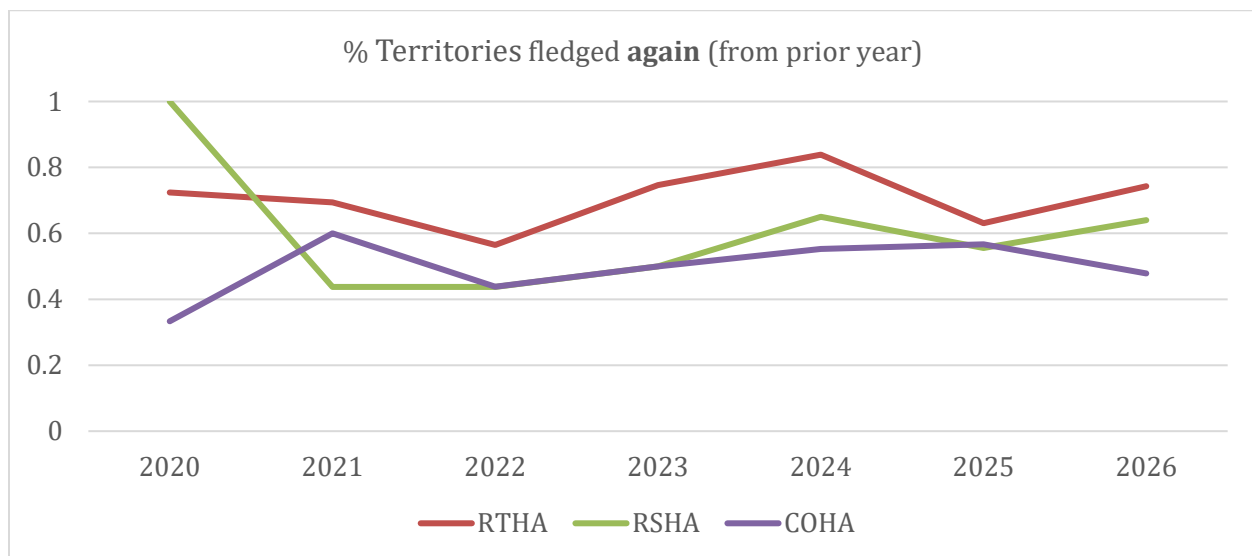


Figure 5. Proportion of territories that fledged for a second consecutive year for the three focal hawk species, 2020-2026.

3.2 Species detail

Red-tailed Hawk

This year saw 108 Red-tailed Hawk territories fledge (from 152 active territories tracked), nearly identical to the year prior (105 territories fledged from 150 active)^{9,10} (**Figure 6a**). Thus, it is likely we're "topping out" in terms of the total number of territories within the study area. This is also evident from the slowing rate of new/unknown (to us) territory discovery – just three new Red-tailed Hawk territories were newly discovered in 2026: one in the middle of a golf course in the Sepulveda Basin, and two in highly-urban settings in the central city. The proportion of fledged to active Red-tailed Hawk territories in 2026 (71%) was close to the mean since 2020 ($n = 6$; mean = 75%).

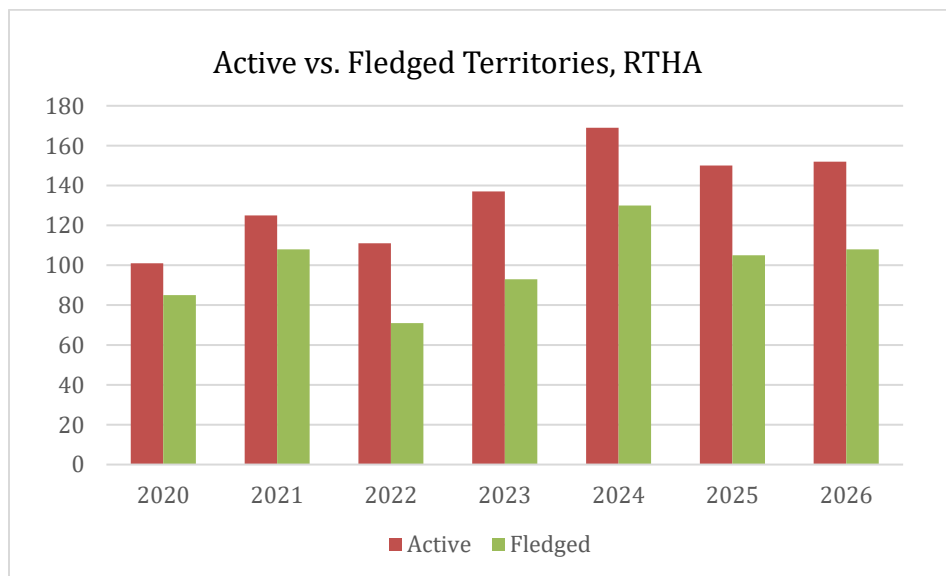


Figure 6a. Red-tailed Hawk active territories and fledging outcome, 2020-26.

Overall productivity of Red-tailed Hawks in 2026 continued to decline as compared to the prior year in terms of total chicks produced; the average number of chicks per nest also dropped (both were slightly below the 6-year average) (**Figure 6b**).

⁹ This includes territories where the volunteer(s) failed to complete the year's monitoring, and where we could not follow up, as well as those known or strongly suspected to have abandoned the year's nesting attempt.

¹⁰ Prior year's reported values may be slightly different than those reported last year, owing to improved data and analysis.

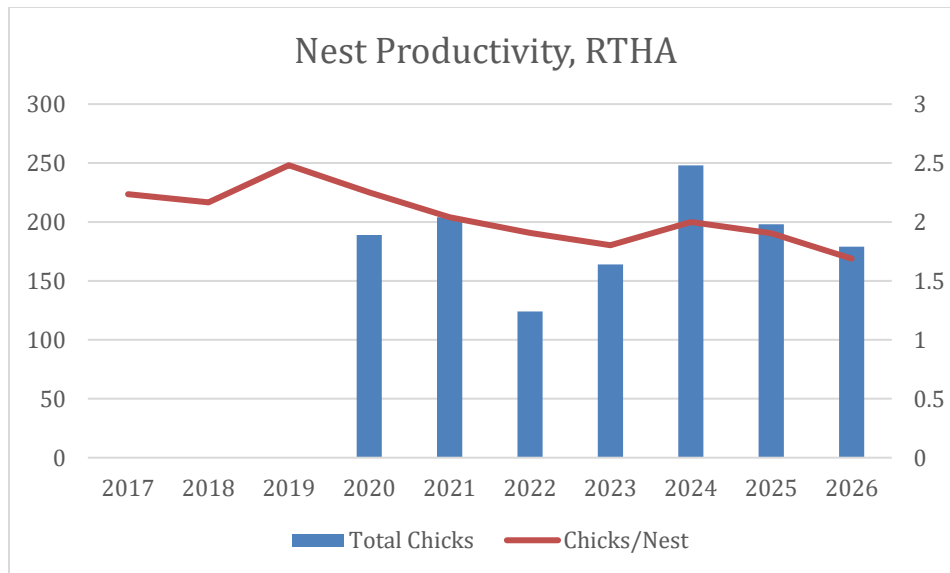


Figure 6b. Nest productivity for Red-tailed Hawk, expressed as total number of chicks across all nests (blue), and average number of young per nest (red).

Cooper's Hawk

While 2025 saw nearly identical number of active and fledged Cooper's Hawk nests compared with 2024 (91 nests fledged out of 110 active, vs. 90 in 112 in 2024), 2026 saw a fairly large drop, with 77 nests fledged out of 92 active. This fledging rate (84%) was (again) just below the 6-year average (86%), but was very close (**Figure 7a**); this rate has hovered between 80-90% each year.

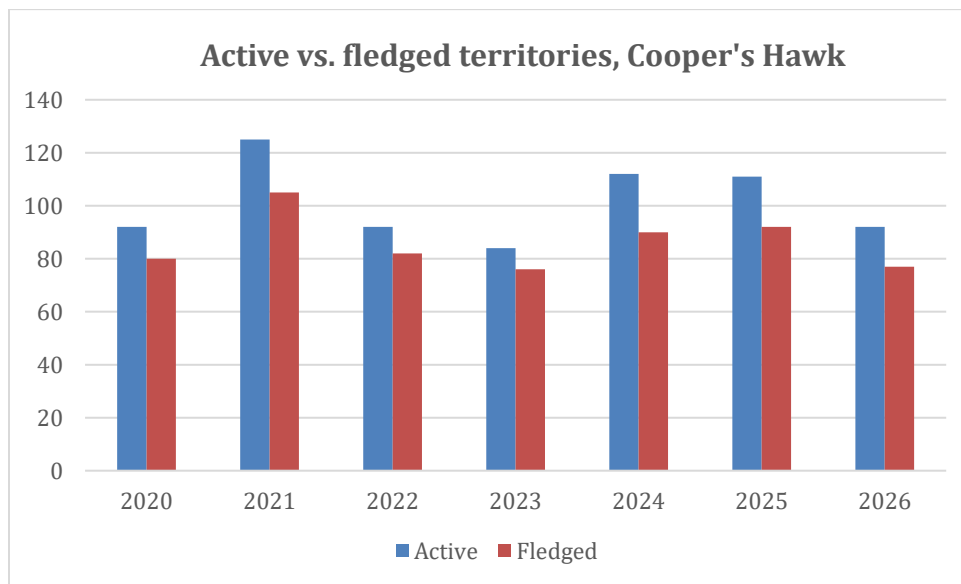
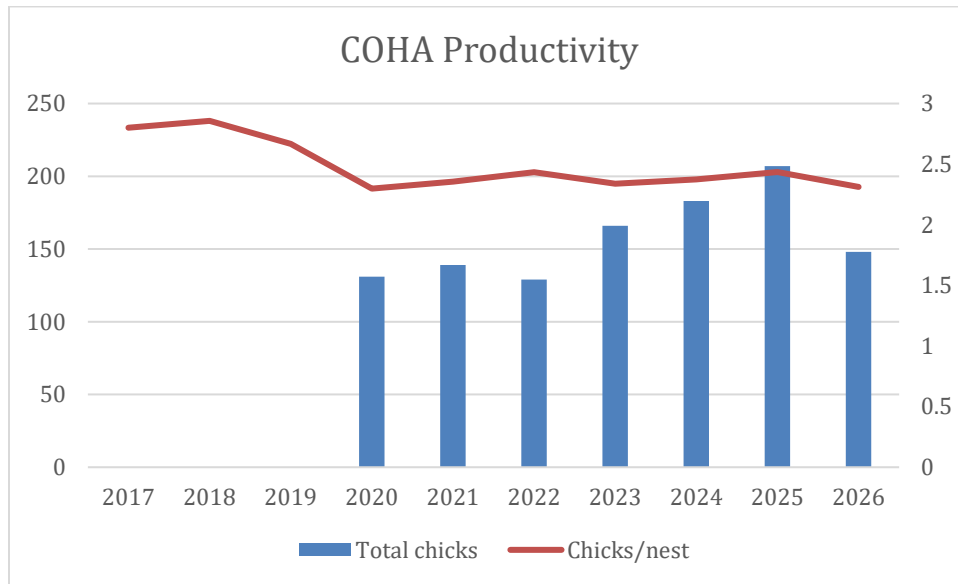


Figure 7a. Cooper's Hawk active territories and outcome, 2020-26.

Reversing last year's trend, Cooper's Hawk productivity dropped in 2026, as measured by the total number of chicks produced as well as the average number of chicks per nest (**Figure 7b**). Reasons for this remain unclear, and it is possible that 2025 was simply an unusually productive year in a run of good ones.

**Figure 7b.** Nest productivity for Cooper's Hawk in 2025, expressed as total number of chicks across all nests, and average number of young per nest.

Red-shouldered Hawk

This year (2026) saw 28 Red-shouldered Hawk nests fledge young from 39 active territories (72%). This proportion was a bit higher than the 6-year average (68%) (**Figure 8a**).

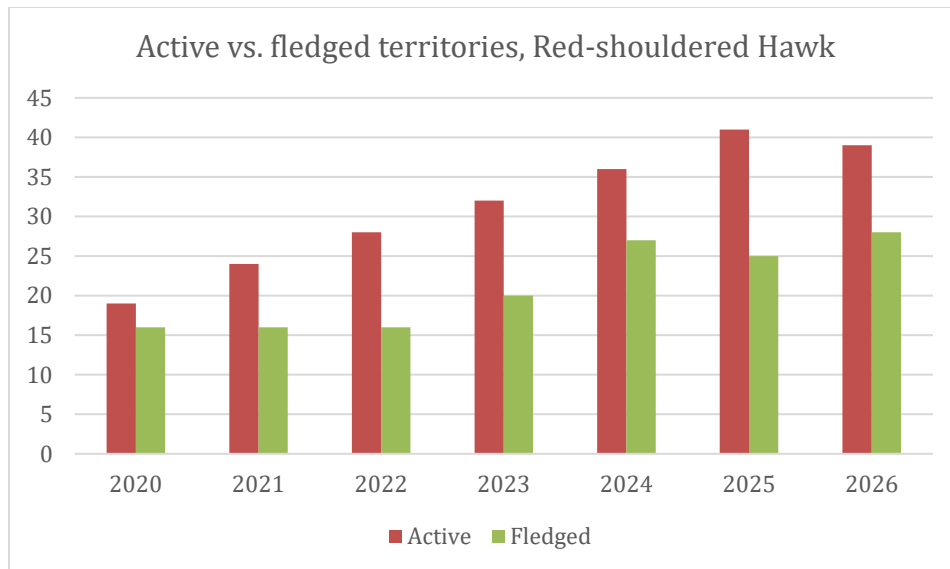


Figure 8a. Red-shouldered Hawk active territories and outcome, 2025.

The total number of chicks for Red-shouldered bounced back to exceed the 2024 high in 2026, and showed a slight increase in young production per nest over the prior year (**Figure 8b**).

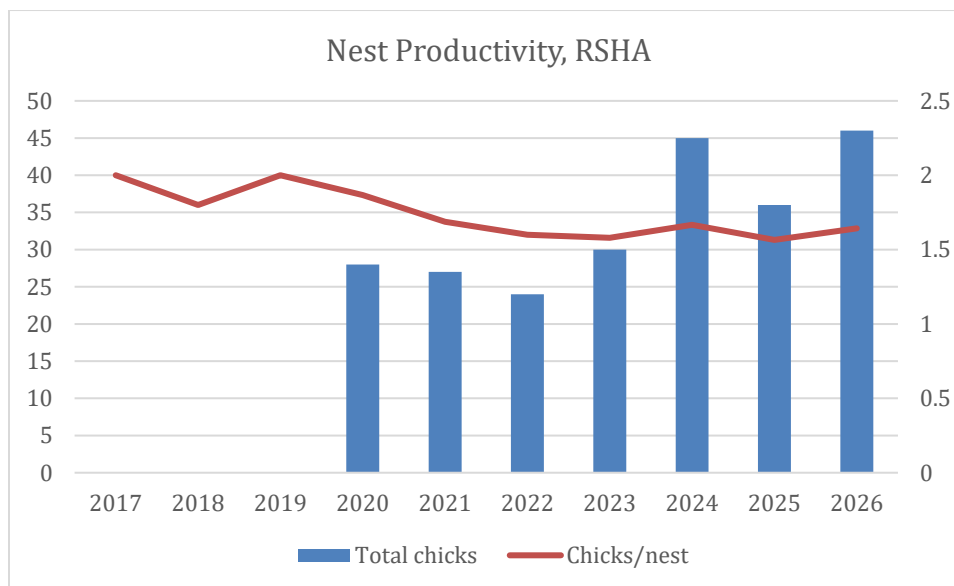


Figure 8b. Nest productivity for Red-shouldered Hawk in 2026, expressed as total number of chicks across all nests, and average number of young per nest.

Great Horned Owl

In 2026, we found 28 of 41 active Great Horned Owl territories fledged young, a similar ratio found in 2025. As in prior years, we did not attempt to specifically search for owls or owl nests in most of these territories (nor anywhere else) during the study, due to the difficulty of finding their nests during the day. However, we located several owl nests in nests that had previously been other raptor species, or ravens.

The number of owlets produced in 2026 dipped sharply from the 2024 high, though the number of chicks per nest recorded (1.8/nest) was lower than any recent year (6-year average: 2.08/nest) (**Figure 9**). This pattern echoed that of Cooper's Hawk, which also showed a sharp drop in the total number of chicks produced, though that species' chick production peaked later (2025 vs. 2024 for owls).

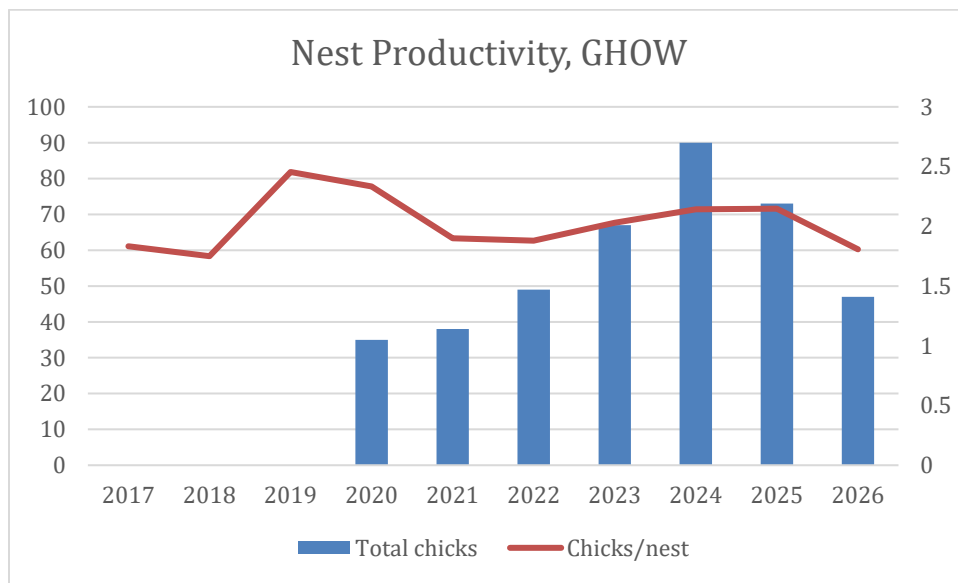


Figure 9. Nest productivity for Great Horned Owl in 2026, expressed as total number of chicks across all nests, and average number of young per nest.

3.3 Rare Species

We continued to document some of the rarer species in the study area for which we have little data. Just two American Kestrel territories were active, both along the Los Angeles River. One was along the LA River near Griffith Park), which fledged young (the outcome of the other at Rio de Los Angeles State Park was inconclusive). Kestrels breed reliably well to the west of the study area in the central Santa Monica Mountains but are nearly extirpated as a nesting species from the central Los Angeles Basin.

We're up to ten known Peregrine Falcon territories in the study area, with breeding activity at four (fledged young confirmed at each). One has been well-monitored for years at a natural rock formation within Griffith Park; the others are on high-rises in urban areas, including

Burbank, Van Nuys and mid-Wilshire. With additional effort, we could substantially increase the number of Peregrine nesting sites known to us (unlike, say American Kestrels), which are readily observed and often nest in prominent trees and other easily seen structures.

We again used community-science platforms (eBird and iNaturalist) to locate territories for cryptic species such as American Barn Owl and Western Screech-Owl. We are now aware of 12-15 Barn Owl territories in the study area, plus several west of the 405 Fwy. just outside the study area. However, these territories are very hard to monitor, due to the secrecy and nocturnal habits of this cavity-nester (most nest in palm trees, deep within fronds), and we only detected activity at three territories in the study area (Burbank, Mt. Washington, and Culver City), with 1-2 young fledged at each.

Our monitoring of eBird and iNaturalist uploads also aided in locating additional Western Screech-owl territories in 2025, and we are now aware of 31 potential screech-owl territories, in that at least one adult or juvenile has been reported in recent years. While most are in Laurel Canyon and Northeast L.A. (e.g., Mt. Washington), we are aware of others in the Burbank-Glendale area, as well as in Griffith Park. In 2026, at least one juvenile was observed with a pair of adults at Debs Park (via email from Diego Balbuena), and one brood emerged from a nest box near Mulholland Dr. above Sherman Oaks. This species would benefit greatly from a nest box program in the study area.

Often lumped in with raptors, Turkey Vultures continue to be encountered as pairs and singles, but no nesting activity has been observed.

3.4 Single-chick nests

Of the many ways to measure nest productivity, another is the proportion of *single-chick nests* (nests where the maximum number of chicks was believed to be just one, versus all other nests where chicks were produced), which could indicate a shortage of food that year. Productivity can drop with drought, according to a study of precipitation and Northern Goshawk (*Accipiter gentilis*) nests (Bangerter et al. 2021), but the effect of extremely wet weather – while seemingly obvious – seems less well documented. Assuming that Red-tailed Hawks would be most sensitive to change in precipitation (since they take more native prey species from wildland areas than, say, Cooper’s Hawk, which are well-distributed in urban areas), we again examined the relationship between precipitation the prior year, and the proportion of 1-chick nests for Red-tailed Hawk¹¹.

Over the past 10 years, an average of 17.6% of Red-tailed Hawk were one-chick nests. We found that the nesting seasons following the driest winters (i.e., 2018, 2021, and 2025 nesting seasons), each saw jumps in the proportion of Red-tailed Hawk nests with single chicks from

¹¹ As with assessing the mean number of chicks, we only included nests with one (or more) young in calculating the proportion of single-chick nests, and left out nests where we suspected no young were produced.

the year immediately prior (**Figure 10**). We also note that the two seasons following two exceptionally-high-rainfall winters (2023 and 2024), each had a relatively high proportion of 1-chick nests. However, 2026 essentially broke this pattern – a moderately wet winter (rainfall was 4.27” higher than historical average) that also had the highest rate of one-chick nests since the beginning of the study. So, it is likely that many other factors are involved in determining when a low number of young are produced.

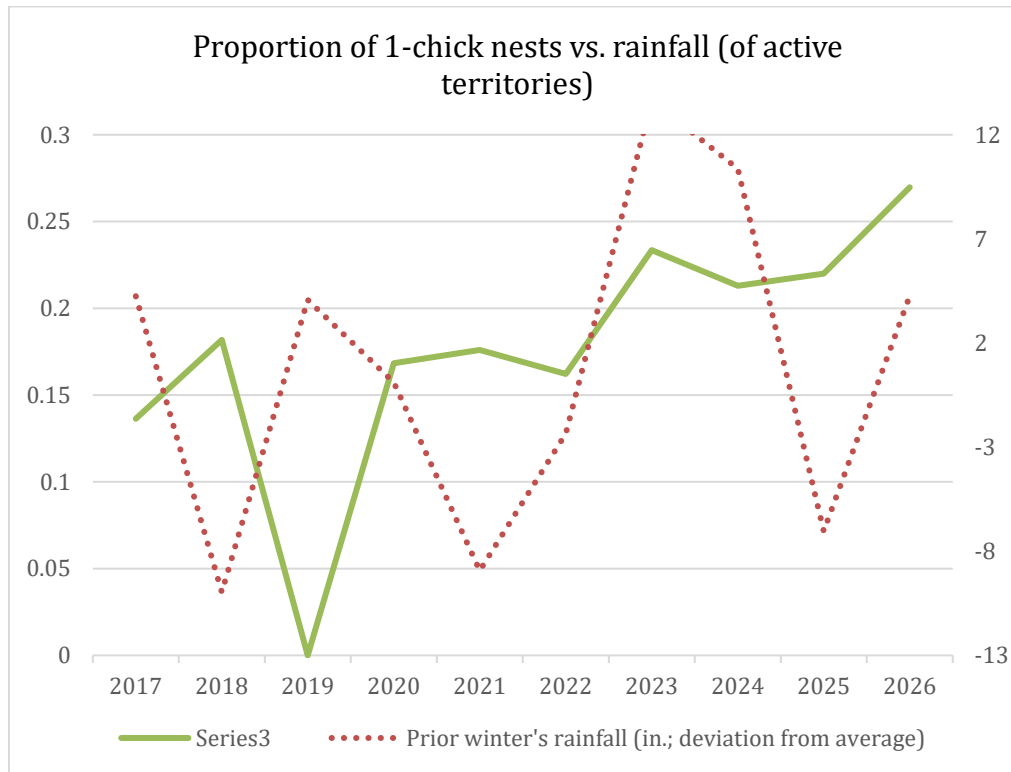


Figure 10. Proportion of single-chick nests of Red-tailed Hawks (primary y-axis) in relation to rainfall the *prior* winter (secondary y-axis). Rainfall measured from Downtown Los Angeles (see “Methods”) and shown as a deviation from the c. 100-year average from the same location.

3.5 Failed Nests

As in past years, it may be instructive to review why the few failed nests did so. In **Table 2**, we summarize all raptor nests believed to have failed in 2026, in that nesting was initiated (typically with incubation observed), but was abandoned mid-season.

Fourteen nests of our four focal species were believed to have failed in 2026, a roughly average count since we started tracking this more closely in 2020. Failed nests were distributed throughout the study area, and weather during spring 2026 was relatively mild, with no major wind or extreme heat events.

However, human disturbance was documented or strongly suspected in three of these failures, notably our first suspected instance of a failure caused by drone use (Table 2).

Table 2. Observations of failed raptor nests in 2026. This does not include territories with no nesting activity, where nesting was suspected but where no nest was found, or where observation time or number of visits were insufficient to determine success.

Territory	Location	Notes
COHA-649	Hancock Park	Tree trimmed with incubating adult
GHOW-038	Silverlake	Unk. reason; no change to nest area, but highly visible nest with many observers daily.
GHOW-487	West Hollywood	Unk. reason; no change to nest area.
GHOW-705	Studio City	Unk. reason; no change to nest area.
RSHA-197	Los Feliz Golf Course area	Unk. reason; no change to nest area.
RSHA-524	Wilson & Harding golf course	Unk. reason; no change to nest area.
RTHA-001	Griffith Park: Mineral Wells	Possible drone disturbance (drone use seen close to nest early in season, then nest abandoned)
RTHA-100	Eagle Rock	Unk. reason; no change to nest area.
RTHA-314	Glendale: Chevy Chase area	Unk. reason; no change to nest area.
RTHA-504	Baldwin Hills: Oil field	Unk. reason; no change to nest area.
RTHA-522	Glendale	Unk. reason; no change to nest area.
RTHA-604	Glendale	Unk. reason; no change to nest area.
RTHA-681	Glendale	Unk. reason; no change to nest area.
RTHA-750	Exposition Park	Netting placed directly around nest site during construction, blocking access to nest.

3.6 Tree-trimming and Nest disturbance

Tree-trimming/removal impacts are difficult to analyze since the timing of trimming or nest removal is not always known. Trimming itself, particularly during the fall and winter and not during the nesting season, does not appear to always result in major disturbance to nesting hawks, even if it results in the removal of nest structures. Many pairs will renest within the same territory (presumably the same birds as in the year/s prior) following tree-trimming or tree-removal. This nesting may either occur in the same nest structure (if not completely removed), or an alternate nest may be built nearby. In some cases, trimming occurs on territories where no nesting has been detected in recent years, so simply amassing examples of tree-trimming near known nests can inflate its actual impact.

However, Red-tailed Hawks do seem to abandon territories following tree or nest removal more than other raptor species, based on our observations since 2017. While some pairs are able to renest in an alternate tree, or return in subsequent years, several of these pairs have yet to return to the territories where nests were “trimmed out,” despite the existence of many seemingly suitable nest trees remaining, and our continual coverage each year (**Figure 11**).

In many cases, however, raptor pairs may simply elect not to nest (or nests will fail) even where no visible trimming or disturbance was detected, and where the prior year's nest is still present. Or, observers note that the nest is simply be gone from the nest tree, with no sign of human disturbance (perhaps blown out by wind weeks or months before). We have not counted these instances as "disturbance," though some may well be the result of some un-detected disturbance event. However, when observers noted clear evidence of wind or rain-caused nest disturbance, we have noted that.



Figure 11. Nest tree in Sherman Oaks before (2024) and after (2025) trimming; a Red-tailed Hawk nest that had been active in 2024 was apparently removed during trimming. While the removal of the nest structure commenced *after* fledging, this is still against state law, as raptors reuse their nests year over year. Further education of residents, tree-trimming contractors and arborists is needed. This pair has not returned as of 2026. Photos: Dan Cooper (before) and Nurit Katz (after).

We hope to track and analyze these disturbances more fully in future years, to search prior years' notes for clues about nest disturbance, and to examine long-term impacts to affected pairs. **Table 3** lists 18 apparent disturbances to nests as recorded in 2026 (compare with 38 instances in 2025, up from 28 instances in 2024).

Table 3. Disturbances to nests noted during 2026 season, including notes on their impact. Some of these instances may have occurred in late 2025, subsequent to our data collection effort that year, and some may not have been the cause of the inactivity of a particular territory. Xx cross-reference w/ master notes. Unless noted, "nest trimmed out" refers to inactive nests being removed as part of tree-trimming.

Nest	Location	Notes
COHA-083 (multiple nest sites)	West Hollywood	All but one tree (figus) removed (no nest in it).
COHA-LA-215A	Hollywood	Trimmed, but right against freeway wall.
COHA-LA-337C	Studio City	Nest trimmed out, but after birds fledged.
COHA-LA-421	Van Nuys	Tree removed (possibly in 2025)
COHA-LA-455	Eagle Rock	Nest trimmed out
COHA-LA-649	Hancock Park	Trimmed while COHA was incubating (nest illegally removed).
COHA-LA-695A	West Adams	Nest trimmed out
COHA-LA-889	North Hollywood	Heavily trimmed as of summer 2026
COHAX-LA-373	Sherman Oaks	Nest trimmed out as of spring 2026
GHOW-217B	Elysian Park	Palm stump that held nest removed (post-fledging)
GHOW/RSHA-527	Monterey Hills	Tree trimmed/nest exposed
RSHA-220 (multiple nest sites)	Los Feliz	Trees removed/trimmed; no nests
RSHA-LA-763	Sherman Oaks	Tree removed/no activity
RSHA-LA-869	Bel Air	Nest trimmed out
RTHA-382	Elysian Park	Last tree with (inactive) nest removed (dead tree)
RTHA-LA-325B	Studio City	Tree cut down or severely trimmed
RTHA-LA-750	Downtown LA	Nest covered with black netting – pair found alt site (-750A) as of 2026 and fledged young
RTHA-LA-890	Studio City	Tree removed

It is likely that our paying more attention to these events, encouraging volunteers to do the same (with a separate category on the data form), and more diligent recording of this information, we now have a better picture of the extent of this disturbance. Fortunately, several territories seem to have weathered this disturbance and fledged young, though many did not.

As in the two prior years, to address trimming issues, we offered a sign to volunteers to place on nest trees that they were able to access that included information about applicable laws protecting the nests. We also provided a letter for interested volunteers to place in resident mailboxes to make them aware of nests on their property (**Figure 12**). Again in 2026, these letters proved helpful, and in a few cases residents contacted the study with issues.



Figure 12. Examples of tree signs and resident letters distributed to volunteers for posting and placing in resident mailboxes.

3.7 Raptor Mortality, Rescue, and Rehabilitation

One of the leading causes of injury and death for raptors in urban areas are collisions with vehicles and buildings. Dead adults and juveniles have been observed in the street due to vehicle collisions. Sometimes injured raptors survive and are able to be transported to licensed wildlife rehabilitators for treatment and rehabilitation. Katz serves as a volunteer with the Ojai Raptor Center, assisting with capture, transport, and release. In recent years, a successful partnership with LA Animal Services SMART team (<https://www.laanimalservices.com/about-us-2/smart/>) has led to a decreased need for staff transport and capture, and SMART has been able to assist in more challenging rescues.

In the 2026 season we received a number of reports of fledgling and adult raptors in need of rescue. Where possible, healthy fledglings were placed in safe locations or back in the nest tree (**Figure 13**). One fledgling Red-shouldered Hawk died of unknown causes, as well as one adult Red-tailed Hawk. Rodenticide continues to be a major threat to local raptors, and *all* dead raptors in the study area that have been tested (Testing coordinated by Friends of Griffith Park) have had evidence of multiple rodenticides in their system, and in some specimens, they have been found to be the likely cause of death.

Disease can also impact urban raptors, including trichomoniasis, spread by members of the family Columbidae (pigeons and doves), including the feral Rock Pigeon. In 2022 a juvenile Cooper's Hawk was rescued in Echo Park in July after a window collision and had a burst crop (which can be a symptom of trichomoniasis infection). After transport, this juvenile tested positive for trichomoniasis, and although the injuries could have been repaired, it unfortunately had to be euthanized due to the disease. H5N1 highly pathogenic avian influenza has led to rapid declines in nesting Peregrine falcons in the San Francisco Bay region (Glucks et al., 2026). Our study does not have enough Peregrine falcon nests or close enough tracking to determine if there has been an impact. We hypothesize that Peregrine falcons in Los Angeles urban areas may not be as affected as in San Francisco due to a larger portion of their diet consisting of pigeons rather than water birds or other populations more heavily affected by influenza.

Rescues in 2026 included a fledgling Red-tailed Hawk that was found by the model airplane field in the Sepulveda Basin and transported to California Wildlife Center after determining it was in need of rescue (**Figure 13**), and a Red-tailed Hawk that was surrendered after being kept at someone's apartment for two weeks.



Figure 13. Left: Red-tailed Hawk fledgling at model airplane facility. Photo: Community member. Right: Great-horned Owl owlet placed in tree. Photo: Joey Curti

3.8 Banding Collaboration



Figure 14. Left: Field Biologist Joe Papp banding a Red-tailed Hawk nestling. Right: Hal Batzloff and Luis Diaz placing a Red-tailed Hawk nestling back in the nest. Photos: Nurit D. Katz

In May of 2026, study leadership collaborated with [City of Los Angeles Department of Recreation and Parks](#), and [Bloom Research Inc.](#) to band the first hawk nestlings in Griffith Park. The nestlings were also tested for rodenticides. Luis Diaz of Recreation and Parks Urban Forestry provided access to three tall trees where the nests were located. Field biologists Joe Papp and Hal Batzloff, through [Endemic Environmental Services](#) banded the nestlings with both federal bands and color bands. The color bands help with visibility and increase the likelihood of reports. These bands will allow the LA Raptor Study to better track the hawks as they leave the nest and return to nest inside the park or surrounding areas.

Graduate students Ella Eleopoulos and Alexandria Koedel, collected blood samples from the nestlings as part of research that is co-led by Cal Poly Pomona Associate Professor of Biological Sciences [Dr. Andrea Bonisoli Alquati](#) and [Dr. Pete Bloom](#), internationally acclaimed raptor biologist. The research is focused on the impacts of Anticoagulant Rodenticides (ARs)- a type of rat poison- on raptors like Red-tailed Hawk and Red-shouldered Hawk.



Figure 15. Left: Ella Eleopoulos (right) and Alexandria Koedel (left) collect blood samples from a Red-shouldered Hawk nestling. Right: Ella Elopoulos collects blood sample from Red-tailed Hawk nestling. Photos: Nurit D. Katz

Ryan Kinzel, Jr. Urban Ecologist for LA Parks Ecology documented the efforts for education and outreach materials. Long time Raptor Study volunteer Kat Halsey provided additional documentation. Public education on rodenticides is key as the use of rat poison affects a wide range of wildlife. You can learn more at: <https://raptorsarethesolution.org/> and local organizations [Citizens for Los Angeles Wildlife \(CLAW\)](#) and [Friends of Griffith Park](#) also have more information, including how to report illegal uses.



Figure 15. Left: Ryan Kinzel, Urban Ecologist, holding Red-tailed Hawk Nestling, while field biologist Hal Batzloff documents. Right: Field biologist Joe Papp banding red-tailed hawk nestling. Gerry Hans, President of Friends of Griffith Park is assisting. Photos: Nurit D. Katz

Nurit Katz, Co-Director for the LA Raptor Study, led the collaboration with support from Friends of Griffith Park President Gerry Hans and Dr. Daniel Cooper, founder of the study. Nurit has been volunteering and training under Dr. Pete Bloom in preparation for adding banding and tagging to the study. Stephanie Smith, Superintendent of Recreation and Parks Operations for the Griffith Park Region, and Leon Boroditsky, Principal Forester for Recreation and Parks, also provided key coordination and support.

3.9 Future Directions

We presented our analysis of nest reuse at the 2025 Raptor Research Foundation annual meeting in San Jose, Costa Rica (Oct. 2025); however, we are still working on writing up and submitting it as a research paper.

We intend to re-analyze geographic patterns of nesting in the future, specifically focusing on territories/nests that are active in each year of the study. As in prior years we noted Red-tailed Hawks as most numerous in the more sparsely-developed neighborhoods of the Santa Monica Mountains and Griffith Park, and still a common species in Northeast L.A. and in Silver Lake/Echo Park, with relatively few nests on the floor of the San Fernando Valley and in the

urban Los Angeles Basin. However, we are learning more about how urban Red-tailed Hawks use their habitat, and several new territories were located in 2026, such as one in the Pico-Union district (using a large palm in a tiny park within a historical residential area) and another in South Los Angeles using stadium lights of a school's athletic field. Several other alternate nests for known territories were discovered in 2026 in very urban settings, including a church steeple near Downtown L.A. We also have leads on pairs nesting on tall building ledges in both Hollywood and Downtown, which will be followed-up on in future years.

We also intend to re-analyze nest tree and substrate type, specifically calculating the types of trees used by each species each year. Clearly, nest usage of non-native trees remains very high (in particular, pines *Pinus* spp., *Eucalyptus* spp., and Shamel ash *Fraxinus udhei*), with western sycamore (*Platanus racemosa*) supporting most of the few nests we found in a native tree species, with a handful of others being found in coast live oak (*Quercus agrifolia*).

As part of a PhD at UCLA in Ecology and Evolutionary Biology, study Co-director Nurit Katz is analyzing the relationship of environmental and anthropogenic factors with nest site selection across the main species of raptors in the study. This analysis will be published separately in a peer-reviewed journal and cited in future reports.

4.0 LITERATURE CITED

- Allen, L.W., K.L. Garrett, and M.C. Wimer. 2017. Los Angeles County Breeding Bird Atlas. Los Angeles Audubon Society. 638 pp.
- Artuso, C., C.S. Houston, D.G. Smith and C. Rohner.(2013).Great Horned Owl (*Bubo virginianus*), The Birds of North America (P.G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America: <https://birdsna-org.bnaproxy.birds.cornell.edu/SpeciesAccount/bna/species/grhowl>
- Bangerter, A.B., E.R. Heiser, J.D. Carlisle, and R.A. Miller. 2021. Local weather explains annual variation in Northern Goshawk reproduction in the northern Great Basin, USA. *J. Raptor Research*. 55:471-484.
- Beebe, F.L. 1974. Field studies of the Falconiformes of British Columbia: vultures, hawks, falcons, eagles. *British College Proceedings Museum Occasional Paper No. 17*. Victoria, BC, Canada.
- Bennett, J.R. and P.H. Bloom. 2005. Home range and habitat use by great horned owls (*Bubo virginianus*) in southern California. *Journal of Raptor Research*. 39:119-126.
- Bloom, P.H. 1985. Raptor movements in California. pp. 99 – 123. In Harwood, M. ed. *Proceedings of Hawk Migration Conference IV*. Rochester, NY.
- Bloom, P.H., M.D. McCrary, and M.J. Gibson. 1993. Red-shouldered Hawk home range and habitat use in southern California. *J. of Wildlife Manage.* 57:258-265.
- Bloom, P.H. and J. Catino. 2016. Nesting Raptors of the Irvine Ranch Wildlands and Associated Environs. Unpublished report.
- Boarman, W.I. and B. Heinrich. 1999. Common Raven (*Corvus Corax*), The Birds of North America (P.G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America: <https://birdsna-org.bnaproxy.birds.cornell.edu/Species-Account/bna/species/comrav>
- Chiang, S.N., P.H. Bloom, A.M. Bartuszevige, and S.E. Thomas. 2012. Home Range and habitat use of Cooper’s Hawks in urban and natural areas. *Urban bird ecology and conservation. Studies in Avian Ecology* (no. 45).
- Clark, R.J. 1977. Cooper’s Hawk hunting in the city. *Auk* 94:142-143.
- Cooper, D.S. and P. Mathewson. 2009. Griffith Park Wildlife Management Plan. Retrieved from the Friends of Griffith Park: <http://www.friendsofgriffithpark.org/wp-content/uploads/2016/10/GP-WMP-Final.pdf>

Cooper, D.S., C. Aiken and A. Spyryka. 2017. Nesting raptors of Griffith Park and the surrounding area, 2017. Report to Friends of Griffith Park, July 15, 2017.

Garrett, K. and J. Dunn. 1981. Birds of Los Angeles County: Status and Distribution. Los Angeles Audubon Society. 408 pp.

Glucs, Z. E., Hunt, W. G., Kilpatrick, A. M., Ambrosini, J., Armstrong, D. J., Bell, D. A., Bianchi, J., Doell, S., Doniach, H., Dudek, B. M., Dunlop, N., Emmons, G., Gregoire, D., Gregoire, A., Lewis, A., Lewis, J., Malec, M., Martin, S., Michel, L., ... Lyon, B. E. (2026). Rapid decline of nesting peregrine falcons in the San Francisco Bay region of California synchronous with an outbreak of H5N1 highly pathogenic avian influenza. *Journal of Raptor Research*, 60(3), 1–11.

Goodman, T. 2025. How citizen science projects can expand your world – and help researchers. Daily News, Premium Magazine. <https://www.dailynews.com/2025/06/04/how-citizen-science-projects-can-expand-your-world-and-help-researchers/>

Pericoli, R.V. and A.M. Fish. 2004. GGRO's East Bay Cooper's Hawk Intensive Nesting Survey – 2003. Golden Gate Raptor Observatory/Golden Gate National Parks Conservancy. Unpublished Report. May 2004.

Preston, C.R. and R.D. Beane. 2009. Red-tailed Hawk (*Buteo jamaicensis*), *The Birds of North America* (P. G. Rodewald, Ed.). Ithaca: Cornell Lab of Ornithology; Retrieved from the Birds of North America: <https://birdsna-org.bnaproxy.birds.cornell.edu/Species-Account/bna/species/rethaw>

Rosenfield, R.N. 2018. The Cooper's Hawk: Breeding Ecology & Natural History of a Winged Huntsman. Hancock House. 164 pp.