

## **Bear Divide Banding Station: A New Location for Capturing Dawn Migrants of the West**

Along the Pacific Flyway, massive dawn migration flights of passerines are mostly unknown, rarely observed, and poorly researched, as compared to those along the Atlantic Coast and Great Lakes. Little is currently known about types of locales where one can witness morning flight movements of western migrants and even less about migration routes and their stopover locations.

On the morning of 11 May 2016 wildlife biologist Dan Maxwell observed hundreds of migratory songbirds funneling through a unique gap in the San Gabriel Mountains above Los Angeles in the Angeles National Forest. The following April and May of 2017 and 2018, we, along with other field crew personnel, witnessed the same phenomenon of hundreds of migrants moving up through the same narrow pass, flying very low, just above observers' heads, even between folks' legs as they reached the pass and flew down the other side. This location, known as "Bear Divide", has quickly established itself, not only as a completely novel and exciting location to observe dawn migration, but also through collaborative research, as an important opportunity to provide a deeper understanding of migration movements in the West.

Bear Divide is located within the San Gabriel Mountains National Monument, approximately 9 km east of Santa Clarita (at 34° 21' 38" N x 118° 23' 52" W). A narrow road crosses the pass at about 850 m elevation, flanked on the east and west by mountains above 900 m, and at the south lies a steep, winding canyon that acts as a "funnel" for migrants moving north. Mixed montane chaparral and sage scrub make up the majority of vegetation in the nearby mountains and valleys, with various pockets of mixed conifer stands. The pass itself is relatively exposed and subject to unpredictable weather, including dense fog and high winds above 50 kph.

In April-May of 2019 and 2020, Dr. Ryan Terrill from the Moore Lab of Zoology at Occidental College, with some others, began

conducting point counts to quantify the species composition and abundance of migrants. On their biggest day to date, on 23 April 2020, they estimated an astounding 13,500 individual birds moving through Bear Divide within a span of three hours, documenting it on eBird. With massive amounts of birds moving through within a short amount of time, point counts can be a challenging survey method, as it can provide an incomplete sample report, as many birds may go undetected or unidentified with such volume. The Bear Divide Banding Station was established to support, compare point count data results, and provide an additional survey method through mist netting to develop a more complete sample report.

In April 2021, under the direction of Master Bander, Walter Sakai, joined by Jayde Blair, and with the mentorship of C. J. Ralph, we opened the Bear Divide Banding Station. The station is situated at a dirt pull-off of the Santa Clara Truck Trail, near the trailhead of the Bear Divide Trail, approximately 300 m west of the Bear Divide Vista Picnic site. We began operating nets on 2 April 2021 and have continued operation six days per week throughout the month of April into May, as weather conditions have allowed. Net efforts ended in mid-May 2021, as migration subsided.

Banding operations consisted of four to five hour mist-netting efforts from approximately 06:00-10:30, using up to eight 12-m mist-nets. By the end of season, more than 700 net hours were conducted with nearly 2,000 total captures. Of those total captures, 1,600 birds were banded and processed, and approximately 250 birds were unbanded, mainly hummingbird migrants. The daily average bird capture rate is approximately 51 birds, with bigger days consisting of nearly 180 captures. Over 45 species were captured with species composition and abundance fluctuating daily and hourly. A high volume of warblers were banded including Audubon's, Yellow, Wilson's, Hermit, Orange-crowned, Black-throated Gray, Nashville, and Townsend's warblers, as well as Common Yellowthroat.

Other high-volume captures include *Empidonax* and *Myiarchus* flycatchers, sparrows,

tanagers, grosbeaks, buntings, thrushes, and vireos.

Some highlights of the season include three individuals from the interior subspecies of Bell's Sparrow, *canescens* that are not typically known to frequent or breed in this area, as does the more expected coastal subspecies, *bellii*. The biggest highlight was a Gray Vireo, only the third ever spring migrant recorded in Los Angeles County.

Our goals this season were to collect and establish baseline data regarding species composition and abundance, fitness and condition, and to compare these results to the point count data conducted by Dr. Terrill's team in order to develop more specific research questions around western migration. These two data sets will be

able to provide a more thorough sample report of what is moving through this region of Los Angeles County, and help further establish Bear Divide as one of the most significant locations to research dawn migration of songbirds on the west coast.

Please email us at [bandbeardivide@gmail.com](mailto:bandbeardivide@gmail.com) with any questions or research interests. Visit [beardivide.org](http://beardivide.org) for live point-count summaries from Dr. Terrill's team.

We look forward to the possibility of hosting WBBA next April to show off our banding site and feature the special birds of southern California.

Lauren Hill and Tania Romero



Left: Banders check nets for migrants as the sun rises over Bear Divide, a pass in the San Gabriel Mountains north of Los Angeles.

Right: Lauren Hill, Ryan Terrill, Jayde Blair, and Tania Romero check for molt limits on Yellow Warblers on the Divide.



*Photos by C.J. Ralph*