

7/9/14

Sometimes, it's worth stopping for a moment to contemplate the arcane. You do not expect a Caltech bird walk in July to be the source of an all-time record high in anything. The wintering birds are gone and the migrations are over or yet to come. Yet, here we are. We have a new record for week 28 with 23 species. It is a local high. The old record of 17, which was set in 2012 and matched in 2013, was substantially lower, as were the median and low of 13 and 9, respectively. This also gives us three successive weeks of new records. However, the record for this week rises beyond impressive because the previous week 28 bird-walks were so relatively numerically weak. In fact, according to Alan's walk scoring metric, this walk was the highest scoring Caltech bird walk of all time (or at least of the 1255 walks, so far) with a score of 3.38.

See the plots at http://birdwalks.caltech.edu/bird_data/species_time.html and http://birdwalks.caltech.edu/bird_data/two_plots.htm

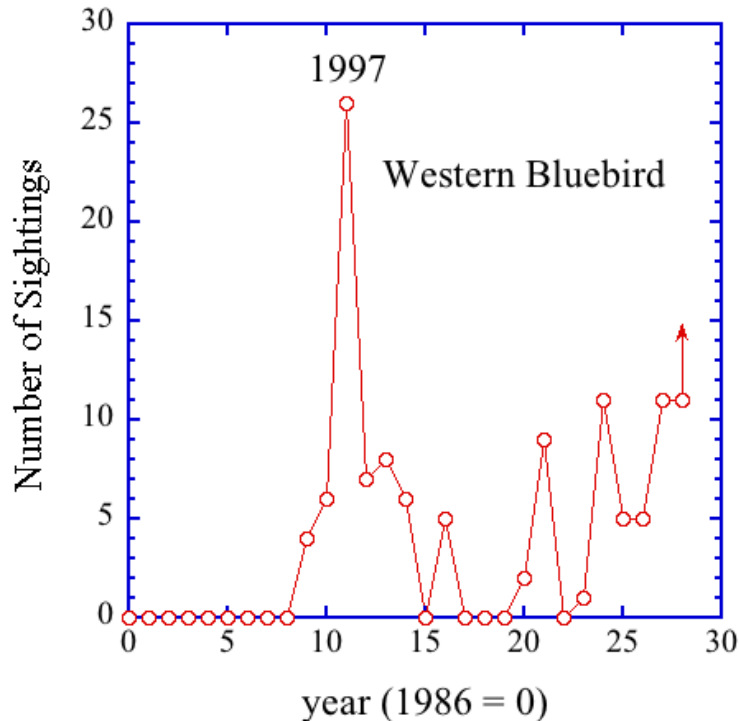
There were no new species for the year but we saw an unusually high percentage of the birds that were available. There were only three species seen in the last two weeks that we didn't pick up this time (bulbul, brown-headed cowbird, and dark-



eyed junco, the latter two perhaps connected) and only one species we saw this week that wasn't seen in the last two weeks (the juvenile western bluebird shown in the two enclosed photos). It was a walk with a casual passion of abundance, as nothing

stemmed out of place or out of time, but the heavy statistics seemed almost Bramecidal. I expect illusion to meet reality in the next week or two but, for now, we should enjoy the pretense and the meal.

There were no exotics on this walk but the highlight bird has to be the juvenile western bluebird. He or she was working the north Athletic field and readily posed photos, although with generally difficult sun exposure. Nevertheless, the first photo shows the characteristic tweed of the breast and a nice eye-ringing. I toss in a second shot to show that there is a still a bluebird's blue to be seen if you can get a view from the side, albeit rather dull if your mental imagery is being driven by a comparison with the much more vibrant blues of an adult male or even of an adult female.



We have been having an unusually good year for bluebirds. From the chart, there appears to be an oscillating but generally increasing trend of bluebird sightings over the last several years. Basically, when we have around ten or more sightings a year, we are seeing bluebirds in the summer and, if we are seeing bluebirds in the summer, we have bluebirds breeding on campus in the spring, and, if we have bluebirds breeding on campus in the spring, we have a very good chance of seeing juveniles (and adults) in the summer. Bluebirds typically double clutch, so by the time members of the first clutch, like our bird, have dispersed, it will be about time for juveniles from the second clutch to appear.

As nice as juvenilia might be, it's important to remember that bluebird breeding around Caltech is a historically recent phenomenon. A century ago, western bluebirds were almost never seen at the lower elevations of the LA basin in the spring or summer. They were wintering birds that disappeared in early spring and reappeared for the winter. With the advent of even casually watered lawns and parks but no wholesale slaughter of natural habitat, bluebirds started expanding their breeding range into the depths of the south coast air basin. You may not like it but there are good aspects to suburban sprawl from a bluebird's perspective. Bluebirds like interfaces where there are perches adjacent to open areas, something we readily supply. However, the key to long-term residence lies in nesting holes. Bluebirds tend to be winners in disturbed areas but the population will plummet in regions with good forage if there are no holes for breeding (i.e., you want an active woodpecker population, a weak to nonexistent starling foothold, and a local population of humans that doesn't chop down every snag or dead branch in sight). Western bluebirds do accept nesting boxes but only in their own Goldilock's framework. Make the entrance hole larger than 4 cm in diameter and a starling is going to take it. Make it less than 3.3 and it will be too small for a bluebird (of course, your local wren or oak titmouse will have a differing view on what is too small). We could potentially impact Caltech breeding probabilities and counts by putting up nesting boxes for secondary hole-nesters but, for now, we are dependent on our local woodpecker population. This is currently booming because the city of Pasadena is too financially

strapped to do much in the way of street tree pruning but I envision bad times for bluebirds once we start seeing better times for city services.

Our bird is perched on a railing and the precipice of life. He/she will start molting off the juvenile plumage in the next month or so to a not quite adult plumage (first year birds don't do a complete molt, leaving the greater coverts as is and, although readily sexed, the overall coloring tends to be duller than for the comparable >1 year old adult). This juvenile will soon be confronting the rule of threes for western bluebirds. If he/she is a she, she will be gone by the end of summer. She won't go very far, perhaps just a few hundred yards, but she won't be on campus and she will probably never see her parents again. It is, however, likely that she will join an unrelated nearby family. If he/she is a he, the future flows on aggression. Aggressive first year bluebirds strike out fast and, sometimes far. They are the vanguard of bluebird expansion into new areas. House sparrows play the same game. However, these aggressive birds don't make very good fathers and their lifetime reproductive success is relatively low. The ladies know what they want and it is generally not an overly aggressive male who is so busy defending territory and looking to mate with neighboring females that he does a poor job of feeding his own chicks. In a stable well-established bluebird area, the aggressive trait tends to get bred out to a low recessive background. That's two of three. We are left with the less aggressive male. If winter forage is reasonably good (bluebirds eat mostly insects, especially larvae, and arachnids during the breeding season but look mostly to seeds and berries for food in the winter), about half of the less aggressive males will disperse and the other half will winter with their parents. Staying in your natal territory over the winter may come with the added benefit of meeting a first year immigrant female. If you can locate a local nesting hole of your own, being a homebody may bring bliss to your spring.

Every species has a breeding program that tries to optimize the long-term viability of the species, even ours, although it may not always seem so. With western bluebirds, you have an interesting approach based on interlocking combinations. They are socially monogamous and form long-term pair bonds that often last a lifetime. Divorce is rare and breeding site fidelity fairly high. Yet one in five nestlings is the progeny of a male other than the social mate. Clearly, affairs are encouraged but they are also quite short, literally minutes in the making and execution. Also, widows are not forever or even for very long. Mortality rates for females are higher than for males so, if the female's mate dies, the widow will soon find solace in an unattached male from the immediate area, perhaps even before the original mate has been fully digested. Unlike a cat, who will generally kill all of the existing kittens, a new bluebird mate will immediately get to work feeding the current clutch, even though he is the father of none of them (or maybe one). As a formerly unattached male, he knows just how lucky he is and he also knows that current performance is a strong predictor of future opportunity.

I leave you with two blatantly unbirdy summer photos. The people photo shows Vicky and Yoshi coming out of the Maintenance yard with Viveca and Alec in the background. I think you can tell that this is a pleasant day, with or without discussing any birds. The second photo highlights a tiger swallowtail sipping at an agapanthus blossom near the Throop ponds. Swallowtail larvae have a decided liking for sycamores, so our butterfly was probably born on one of the sycamores near Winnett.





The date: 7/9/2014

The week number: 28

The walk number: 1255

The weather: 85 F, sunny

The walkers: Alan Cummings, John Beckett, Vicky Brennan, Alec Brenner, Kent Potter, Yoshi Tuttle, Viveca Sapin-Areeda

The birds (23):

2 Northern Mockingbird

4 House Sparrow

- 2 Mourning Dove
- 5 House Finch
- 2 Anna's Hummingbird
- 6 Acorn Woodpecker
- 3 American Crow
- 4 Yellow-chevroned Parakeet
- 6 Lesser Goldfinch
- 1 Spotted Towhee
- 4 Common Raven
- 1 Hummingbird, Selasphorus
- 4 Western Bluebird
- 1 Black Phoebe
- 2 House Wren
- 3 California Towhee
- 1 Nuttall's Woodpecker
- 2 Red-masked Parakeet
- 2 Band-tailed Pigeon
- 1 Black-chinned Hummingbird
- 4 Bushtit
- 1 Red-tailed Hawk
- 1 Downy Woodpecker

--- John Beckett

Respectfully submitted,
Alan Cummings,
2/4/15