

“Swifting” Up High and Under Waterfalls: Training the Citizen’s Eye

2017

by Amy Seaman



Since the summer of 2013, Montana Audubon has engaged citizen scientists in searching for one of Montana’s least understood species, the Black Swift. When we started these efforts, just seven nest sites were known in the state, and it was clear the bird remained among the *Species of Greatest Inventory Need*. Nesting amongst rocky niches, and under hidden waterfalls, locating the colonial-breeding Black Swift remains challenging even to a trained observer’s eye. In our first four years of surveys, efforts by Montana Audubon staff and a dozen volunteers turned up just three new nesting sites. Focused surveys in Glacier National Park confirmed six sites there in 2013. At the start of the 2017 field season, individual efforts and those by Montana Fish, Wildlife, and Parks, yielded 17 nesting sites, state-wide. We were making progress, albeit it slow. In an effort to speed up our rate of discovery, we took a different approach in 2017: (continued...)

(Above) Lunch Creek Falls (foreground) and Reynolds Creek (background). The backdrop to our Glacier National Park Black Swift citizen science training this summer. Photo by Jeff Van Tine



hosting two in-person field and classroom trainings. Twenty six individuals ranging from agency personnel to seasonal technicians and volunteers joined us in Glacier National Park and Holland Lake for an intensive, two-day introduction to these elusive creatures. Trainees spent over two hours together working on the survey protocol, learning how to navigate the physical demands of the field, and getting introduced to the unique biology of this extremely fast study species. As dusk approached each night, we

headed to the falls to practice survey techniques. Trainees worked in small groups to score waterfall habitat characteristics such as height, type, flow volume, ‘commanding view over the surrounding terrain’, moss availability, shading of nest niches, and falls’ aspect – all qualities known to influence the likelihood a waterfall will be used by Black Swifts.

Talking through each group’s scores together helps hone the individual observer’s eye and adds an important element of objectivity when moving through the scoring process.

Standardizing data collection in this way is exactly what the state needs to carry out surveys that effectively

(Above) Technician Jack Toriello leads a group through the exercise of scoring a waterfall. (Below) Understanding and completely filling out data sheets is an essential, though tedious part of the survey. Photos by Jeff Van Tine





determine a species' conservation status. We shared as much as possible about developing a good search image,

(Above) Trainees work in groups to score waterfall characteristics before comparing notes. (Left) Lisa Bate, Glacier National Park Biologist (front in teal) leads a group through the waterfall scoring process. (Below) Kristi Dubois from Montana Fish, Wildlife, and Parks looks at waterfall sketches helpful for recording observation data when there are birds present.

Photos by Jeff Van Tine





(Above) Holland Falls has had a known nesting colony of Black Swifts and was the site of our second training. (Left) Technician Jack Toriello works with volunteer Austin Rice at Lunch Creek. Photos by Jeff Van Tine

including looking for white-wash, and scouring the waterfall face for “mailbox-sized” nooks where nests may be hidden. Despite the fact that the Lunch Creek waterfall had been occupied by swifts in 2016, none were found during this summer’s training – and no birds turned up during later surveys this summer. Holland Falls on the other hand provided just the search image the trainees needed, as

birds were observed almost a dozen times streaming out from the waterfall's sides, down the creek, and out over Holland Lake. The few fast glimpses allowed trainees to observe the lightning-like speed at which an adult Black Swift enters its nest location, and made clear a point we reiterated often during the training, "just don't look away". It is safe to say almost everyone that attended these trainings became hooked on how exciting it is to be in the presence such an amazing and uncommon creature.



(Left) Trainees below Lunch Creek Falls show how tiny a person can be in the nesting habitat of the Black Swift. Photo by Jeff Van Tine

After the trainings, we coordinated with volunteers to survey 18 waterfalls, resulting in the location of four new Black Swift colonies. Two of these are located in the park and two are outside, including the first find in the Cabinet Mountains. Volunteers logged over 400 hours and drove more than 1,400 miles during the search – which doesn't end this year: this cadre of "swifters" is ready to hit the trails again next year! Between funded surveys and citizen science, 2017 was a year of great discovery, and our collective efforts have doubled the known number of sites to a total of 34. There remains much to learn about Black Swift conservation but we're working in the right direction with an amazing crew of people.

Funding for these trainings was provided by Montana Fish, Wildlife and Parks, the Glacier National Park Conservancy, the LEAW Family Foundation, the Cadeau Foundation, and individual donors. Many thanks!