

By February of 2017 I knew this year's Black Swift survey season, or "swifting season" as I like to call it, would be different. Instead of a piecemeal approach of patching together grants to find time for up to two weeks of surveys, by February I had already dug my heels in on three small grants and had my fingers crossed for good news from Lisa Bate, Glacier

National Park's (GNP) non-game biologist and long-time Black Swift survey partner and co-conspirator. Good news came by March, and with The Glacier National Park Conservancy help, it became clear that 2017

was time for a full survey effort, a push to train as many

volunteers and agency staff as possible, and a year to find some new nests! For those of you following the somewhat mystical Black Swift, you know we are only beginning to unravel the mysteries of their waterfall-obscured nesting locations. At the beginning of this summer our state had collected location information for 17 nesting



(Top) Dawn Mist Falls, the first site of the season. (Above) Lisa Bate and I in the North Fork in 2015. Photos by Jack Toriello and Amy Seaman



colonies around the state; 10 in Glacier National Park, and seven scattered between the Yaak valley, Bitterroot valley, the Mission Range, and beyond. This year's boost in funding meant that rather than the four to six survey nights we manage a year, we were able to conduct 31 surveys, while scoring 45 waterfalls. Remarkable considering it has taken us since 1961 to find the first 17 sites! For our 2017 efforts, field biologist Jack Toriello was brought on by GNP and the Conservancy; together we documented 15 new waterfall locations where Black Swifts were seen entering and exiting the falls. Just four locations were east of the continental divide.



(Top) South Shepard Glacier Falls, Paoita Falls, and Astina Falls (top left to right) in the Belly River drainage – east of the divide. (Above) Raven Quiver Falls, Belly River, found occupied Photos by lack Toriello



Our first surveys were conducted in the along the Belly River. Our long hike in took us to near-trail falls like Dawn Mist and Mokowanis Cascade, while our off-trail mission

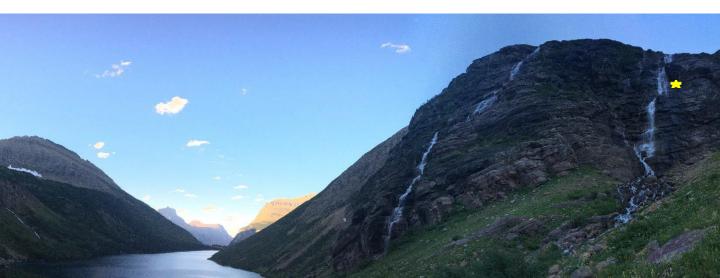
(Top Left) Jack Toriello and I were the core of Glacier National Park's survey team. (Above) Flattop Falls, suspected of occupancy in 2016 and confirmed in 2017. Photos by Jack Toriello andunk.

was getting to the base of falls like South Shepard Glacier and Raven Quiver, cascades pouring hundreds of feet down near vertical walls. Our fourth night, we witnessed swifts entering and exiting the rightmost section of Raven Quiver falls, just the second occupied site in Montana that is east of the continental divide. Seeing those first birds after a yearlong season-driven hiatus brought back all of the excitement of past year's discoveries. Whenever I heard Jack yell "bird in" or "bird out" my excitement lead to a little internal laughter at how these birds really can make or break your day! Three other sites were also surveyed in the Belly River by a team made up of GNP technician James Waddel and volunteer Danny Stark, bringing the survey number to seven the first week. We figured if we maintained this almost 15% success rate we'd be golden! In order to boost that number, we re-surveyed Flattop Falls for



our second mission along with James, helping to confirm a site he and others suspected was occupied last year. Regrouping for our third major survey effort, we headed to the Gunsight/Ellen Wilson region where we knew many falls flowed from glaciated basins. Just how many were truly "swifty"-looking falls was shocking and we could have stayed and surveyed in the region for weeks. Instead we had just two nights in the Gunsight Basin, one night at

(Above) (Below) About a dozen large falls surround the snow-filled basing above Gunsight Lake. The leftmost two falls (#5 and #6) were also occupied. (Below) Gunsight falls # I and # 2. Falls #2 was found to be occupied during an evening survey. Photos by Amy Seaman and Jack Toriello



Ellen Wilson Campground, and one night to explore Siksika Falls along the St. Mary River. Each of the first three evenings brought the glints of "black lighting" we were hoping for, and we confirmed occupancy at three new falls. Two of these were east of the divide (becoming Montana's third and fourth eastern sites) and one was above Ellen Wilson Campground. This falls (below) proved the "swiftiest" of all with up to seven or eight likely nest sites.





Our attempt to reach Siksika Falls was thwarted by a deeper than anticipated glacial-carved creek, hornets angry from the August heat, and unexpected slow travel through dense alder thickets. Maybe next time! There certainly were many promising falls rimming the receding Jackson Glacier, feeding the St. Mary River below. Attempting to shift our focus to

Attempting to shift our focus to sites west of the divide we headed to Trout Creek in the Camas drainage, NW of McDonald Lake. But, along with our shift, came a

(Above Left) This pair of goats joined me during our Ellen Wilson surveys. (Above Right) A young-of-the-year walks into our Lake Ellen Wilson campsite. (Left) Ellen Wilson Campground Falls #2, the most active falls we surveyed all season. Photos by

change in the park's fire activity, and no sooner had we entered the Camas drainage proper when we noted a column of smoke on the near side of the ridge between us and current fires in the Logging drainage. We notified authorities and continued toward camp, where in a fit of irony our survey was canceled by rain, wind, thunder and lighting. Mid-August's thunderstorms started countless Montana fires, and Glacier was not spared. By 7am the next morning we were sent evacuation orders, and by 7:15 requests to help evacuate others! Luckily just one couple had spent the night at the camp above ours, so by 2pm we had found them, and left the area safely. This shift in the season brought fire and

smoke in as a permanent backdrop to our work.



(Above) Jackson Glacier supports a host of waterfalls that are slated for exploration in 2018. (Below) Lower Lunch Creek Falls (far right) towers far above the surrounding terrain as was found unoccupied despite being occupied in 2016 Photos by Jack Toriello and Amy Seaman.





(Left) Jack surveying a waterfall in a tight crack along Reynolds Creek that was not found to be occupied. (Below) Reyonlds Creek Falls, slated for survey in 2018. (Bottom) Siyeh East Falls. One adult female was seen leaving the large cave to the right of the falling water. Photos by Amy Seaman and Jack Toriello

discovery of occupancy at Lower Lunch Creek falls was the first ever east of the divide in Montana, but a volunteer had reported the is as vacant through July, and we hadn't seen birds either during our training about a month earlier. We decided to look one more time, yet both our survey and a subsequent volunteer survey found no birds. This site is now the first east-of-the divide, and the first we have witnessed to be occupied in one year and not the next. It is curious





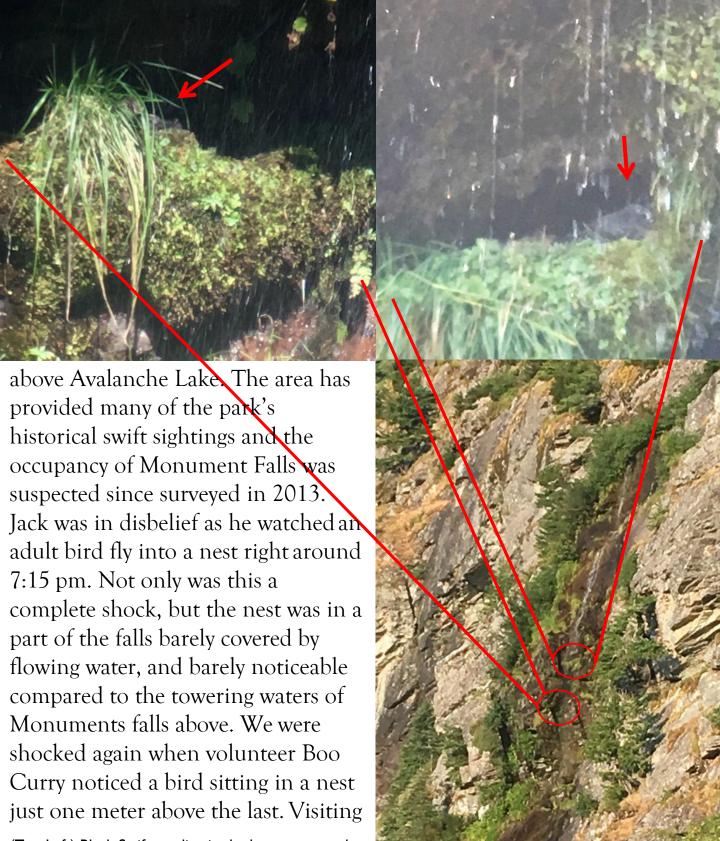
given the estimate of three to five nest locations the previous year. We are hoping that 2018 brings some answers. During this time only one waterfall, Siyeh East Falls, was found to be occupied, and our evidence was just 1 female bird (identified by a rounded tail) exiting a deep cave adjacent the fall's main plunge. Sightings like that always remind you that you really can't even look away for a second! When would the day come that we would just look into our binoculars and, boom, find a nest? We figured never, but with luck on our side, Jack did just that during our two nights surveying

(Above) Avalanche Basin with Avalanche Lake visible far left and Monument Falls visible on the far right. (Below left) A wild caterpillar forages nearby our survey location. (Below Right) Jack and I ascend the very steep slopes surrounding Avalanche Basin's half-dozen falls. Photos by Boo Curry and Amy Seaman

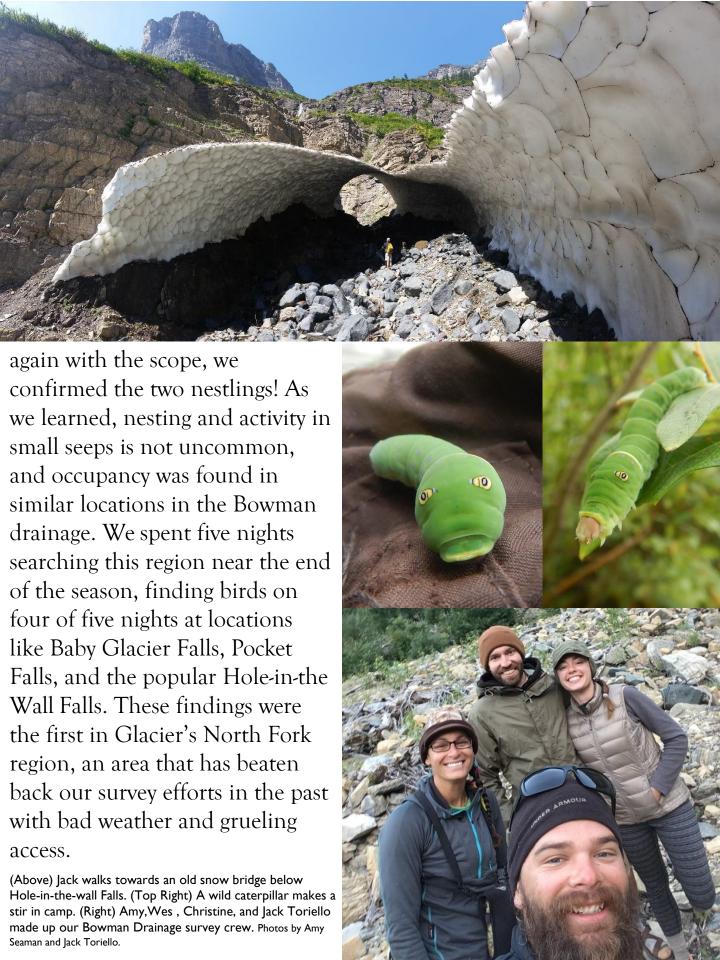


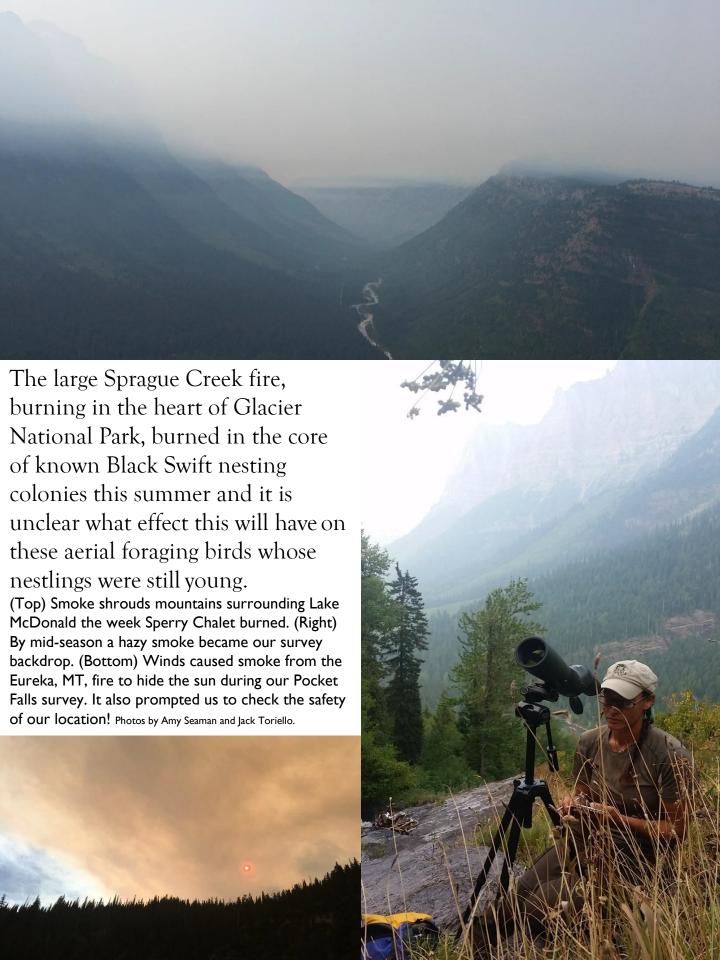


(Above) Monument Falls and Moment Falls Seep as viewed from our observation location. Major falls are located below each red arrow. (Inset) Zoomed in view of the seep where two occupied swift nests were located. Photos by AmySeaman



(Top Left) Black Swift nestling in the lower nest at the Monument Falls Seep colony August 18<sup>th</sup>. (Top Right) Black Swift nestling in the upper nest at the Monument Falls Seep colony August 18<sup>th</sup>. (Right) Monument Falls Seep. Nests here were discovered on August 4<sup>th</sup> and visited on August 18<sup>th</sup>. Photos by Amy Seaman and Jack Toriello







The smoke continued into our final surveys near Cracker Lake. The promising Siyeh Glacier fed falls, and moss-bound seep we surveyed there turned up no birds, which was not surprising given the general aridity of the basin. In fact it was the only area we visited all season where we found no American Dippers! Despite the number of new colonies found, we located nests at just three sites, and nestlings at just one;

proving how much is left to do. Needless to say, the two of us, and now many more have been struck by the "black lighting's" awesome speed and stolen moments of observation that will carry us patiently through until we can begin "swifting" again.



Amy Seaman



(Top) Falls in the basin surrounding Hole-in-the-wall Falls (red arrow). (Below) Falls above Gunsight Lake as seen from Gunsight pass trail. Photos by Jack Toriello



We at Montana Audubon want to thank an incredible group of partners and list of funders including The Glacier Conservancy, Glacier National Park, Montana Fish, Wildlife, and Parks, The Caduea Foundation, LEAW foundation, and The Charolette Martin Foundation for supporting portions of this work!