



Photo by David Beadle – Elk Valley

Kootenay Bank Swallow Survey

Issue #5: Spring 2021

2020 Kootenay Bank Swallow Survey Update

By Janice Arndt, Project Coordinator

The Kootenay Bank Swallow Survey was launched in 2015 to address information gaps regarding the status and distribution of breeding colonies of Bank Swallow (*Riparia riparia*) in southeastern BC. This species had been assessed as Threatened by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) based on steep population declines. Subsequently, in 2017, Bank Swallow received formal designation as Threatened by the federal government under the Species at Risk Act (SARA). The listing under SARA set in motion a series of actions aimed at species recovery.

One of the primary objectives of the Kootenay Bank Swallow Survey has been to provide up-to-date information from our region to federal biologists and others involved in the conservation of this species. Recently, data collected from our project were used to guide the definition of critical habitat in Canada. This is an important contribution and each one of you who has participated in the project helped make it possible. For more information on this step in the recovery process, please see the article by Drs. Tara Imlay and Kim Dohms on p.4.

Since the survey began in 2015, the number of Bank Swallow colonies in the regional database has grown substantially. There are now 175 sites that have been confirmed as active over the past six years. Dozens more locations are known to hold potential as active nest sites, including banks with burrows located during the non-breeding season, or colonies where Northern Rough-winged Swallows or unidentified swallows were observed. Sites that appear inactive in one season might be used in a subsequent year. In addition, sites with rough-wings present at one visit (*continued ...*)

Assessing and monitoring regional numbers of a nationally threatened species



KBSS photo – lower Kootenay River

(...continued)

might later host Bank Swallows. Please continue to report both active and inactive colony sites, as well as sites where any brown-backed swallows are observed to be associated with holes in banks. Every potential site is added to the database for future reference and monitoring.

The survey benefited significantly in 2020 from the work of Rachel Darvill and the Columbia Valley Swallow Project (see p.3). More than 60 new active colonies were discovered and documented, including many from Columbia and Windermere lakes. Creston and Cranbrook areas, and parts of the West Kootenay, also saw good coverage. Flooding was reported at several colonies across the region, which prevented their use by swallows in 2020.

The numbers of breeding birds represented by the colonies that have been documented to date is conservatively estimated to be over 20,000. That's a lot of swallows! This species seems to be thriving in our region. However, long-time birders believe numbers have declined in certain areas. Continued monitoring will allow tracking of habitat changes and relative numbers over time.

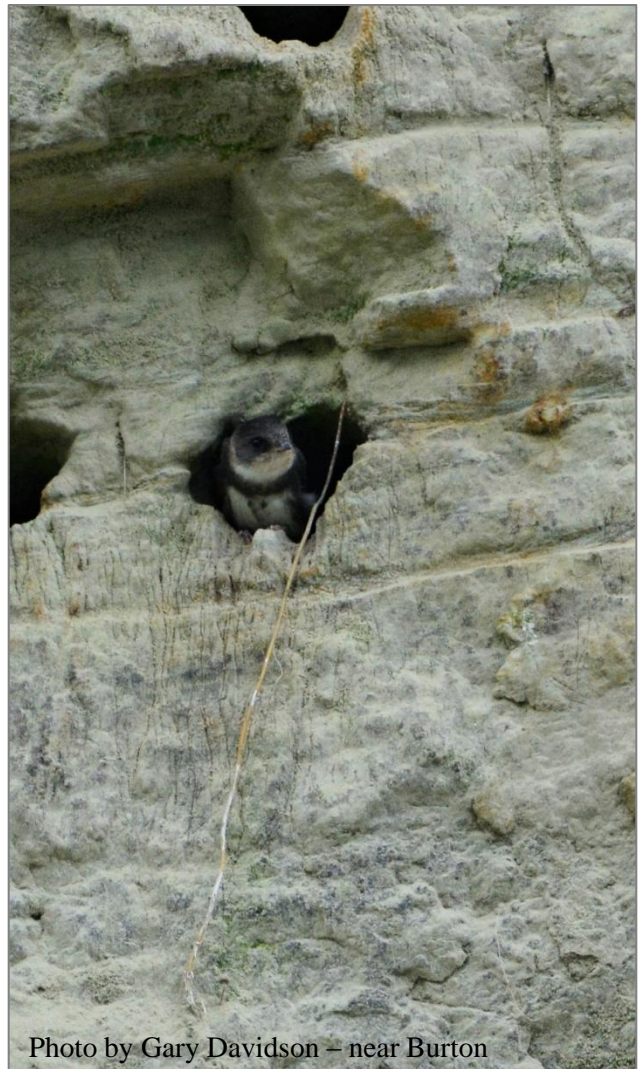


Photo by Gary Davidson – near Burton

Columbia Valley Swallow Project

*By Rachel Darvill, Biologist,
Goldeneye Ecological Services*

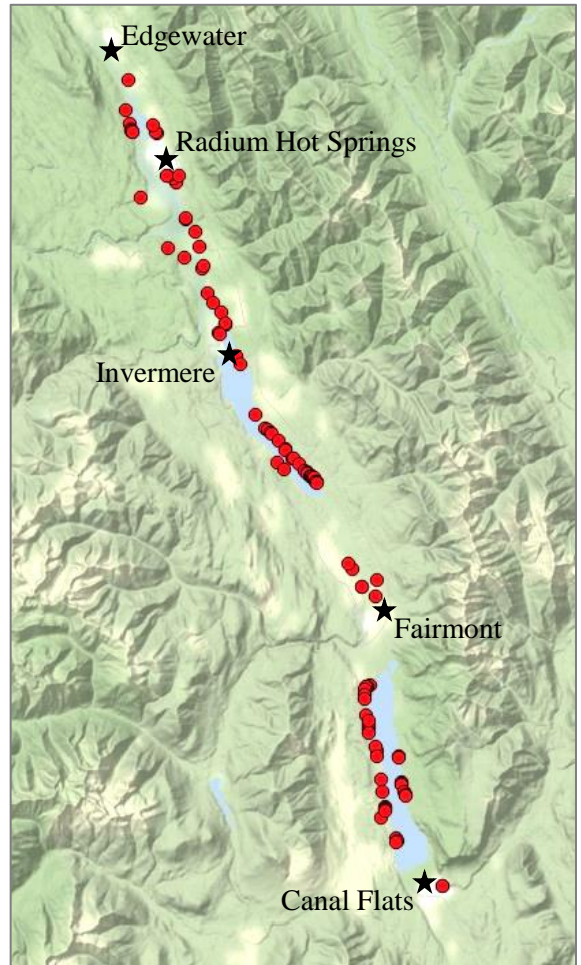
In 2020, the Columbia Valley Swallow Project (CVSP) conducted inventories for both Bank and Barn swallows from Canal Flats to Donald. The CVSP located 96 active Bank Swallow colonies, as well as 24 active Barn Swallow nest sites. Sixty-nine volunteer citizen-scientists were trained and involved with monitoring some of the discovered nest sites. Landowner outreach and stewardship activities within swallow habitat also occurred. Nest locations and nest success is being used to inform the future management of nest sites and is assisting with the designation of Bank Swallow critical habitat under the federal recovery strategy. Data from 2020 are also being used to determine where artificial nesting structures should be built. In subsequent years, we will launch the Upper Columbia Swallow Habitat Enhancement Project, where emphasis is geared towards on-the-ground enhancement and restoration, including erecting artificial nesting structures for swallows on public and private land. Stay tuned for details about this exciting upcoming initiative!

For more on the results of the Columbia Valley Swallow Project and the link to the Final Report, please see:

<https://wildsight.ca/branches/golden/columbia-valley-swallow-project/>

For more information on the Upper Columbia Swallow Enhancement Project, go to:

<https://wildsight.ca/branches/golden/upper-columbia-swallow-habitat-enhancement-project/>



The above map shows the concentration of colonies (in red) in the Columbia Valley between Canal Flats and Edgewater.



KBSS photo – near Edgewater

What is critical habitat?

By Tara Imlay, PhD, and Kim Dohms, PhD

Canadian Wildlife Service - Environment and Climate Change Canada

Bank Swallows have declined by more than 98% since 1970, making them one of the most rapidly declining species in Canada. In 2013, Bank Swallows were assessed by the Committee on the Status of Endangered Wildlife in Canada (COSEWIC) as Threatened. This species was added to the federal Species at Risk Act (SARA) in 2017. Once a species is added to SARA, it starts a process that includes identifying critical habitat.

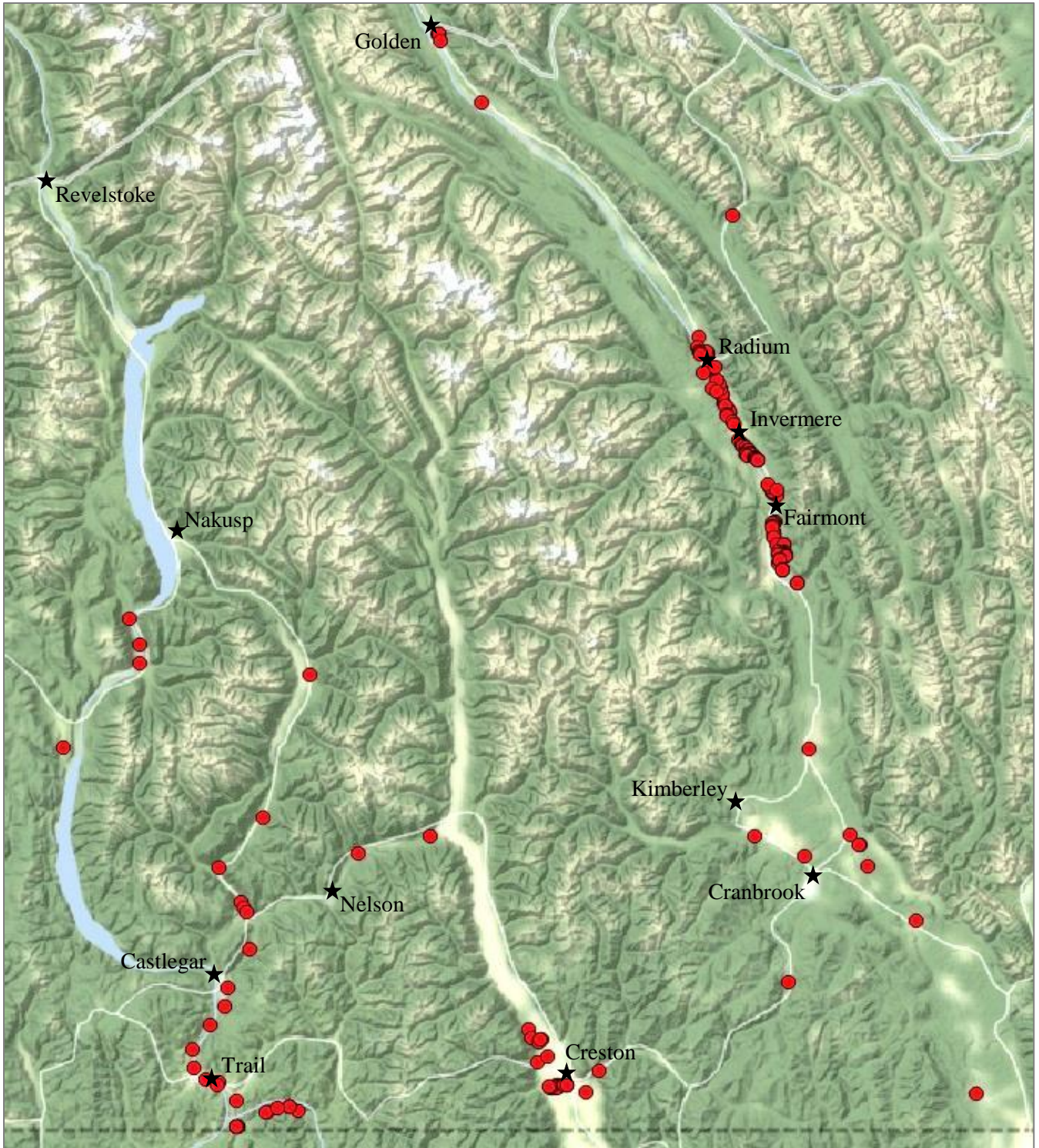
Under SARA, the recovery planning process includes the identification of critical habitat for extirpated, endangered, or threatened species. Critical habitat is defined as the habitats that are necessary for the survival or recovery of these species. For bird species, critical habitat often includes breeding sites where birds nest, raise young, and contribute to the next generation. The process of identifying critical habitat incorporates information from a wide array of sources and can include data mining activities to compile observations of the species from a multitude of datasets, conversations with experts, reviewing the scientific literature, or developing models based on the habitat needs of the species. At many stages throughout this process, there are opportunities for representatives from all levels of government, other stakeholders, and members of the public to contribute comments about critical habitat.

Once all the needed information is available, critical habitat is identified in Recovery Strategies and Action Plans that outline the steps needed to recover Species at Risk. Biophysical attributes of critical habitat are identified and then maps are created to illustrate areas that may contain critical habitat. For example, critical habitat for Lewis's Woodpecker in the West Kootenay region was defined in the 2017 Recovery Strategy as the area affected by the Pend d'Oreille burn. This burn site contains most of the known nest sites in this region. However, in the East Kootenay region, critical habitat was largely identified with a model that was based on habitat type, climate, latitude and elevation. The modeled area included most known nests in this region.

Once critical habitat has been identified, different approaches are used to protect it. For species like migratory birds, critical habitat and nests are protected on all types of land. For other species, when critical habitat falls on private land, there's a sense that the landowner is already a good steward of their property; otherwise the species wouldn't be there. Therefore, on private land, there are mechanisms to support the landowner's stewardship of the property, like information that provides more details on the habitat needs of the species as well as funding programs that support habitat stewardship and restoration efforts.



Photo by Bob Whetham – near Kimberley



The above map shows the locations of all active Bank Swallow breeding colonies that have been reported since 2015 (red circles). More sites are added each year. Every contribution helps to improve our knowledge of the status of this threatened species in our region.



Contribute your observations in 2021!

Please report all new and previously known breeding colonies that you observe in the Kootenays in 2021. Valuable information can be gained from repeat visits to known sites, even if they are not active in the current year. Please report activity and any significant changes. Continue to document all new colonies encountered. A visit in June or July is ideal.

Where possible, please include the following with your report:

- colony location
- date
- photographs
- number of adults

Alternatively, data forms may be requested from the Project Coordinator.

Past newsletters are available at <https://kootenayconservation.ca/KCPStewardship/swallows-breeding/>

The following individuals reported information on swallow locations in 2020: Hilary Anderson, Justin Arndt, Steve Arndt, Brenda Beckwith, Ed Beynon, Daryl Calder, Rachel Darvill and Columbia Valley Swallow Project participants, Gary Davidson, Marie Davidson, Jakob Dulisse, Dwain Foster, Paul Foth, Alistair Fraser, Thomas Hill, Valerie Huff, Helga Knotte, Gail Landon, Cecilie Letting, Susan Low, Peter McIver, Marianne Nahm, Gwen Nicol, Tanna Patterson, Denise Pedersen, Paul Prappas, Tarah Reesor, Alan Sheppard, Pat Sheppard, Ulrike Sliworsky, Blaire Smith, Sachi Snively, David Swain, Bob Whetham, and Gretchen Whetham. **Thank you!** Also, thanks to Creston Valley Bird Fest, Kootenay Conservation Program, West Kootenay Naturalists' Association, and Rocky Mountain Naturalists, for promoting the Kootenay Bank Swallow Survey. Many thanks to our photographers, David Beadle, Gary Davidson, and Bob Whetham, for granting permission to use their images.

Contact Janice Arndt, Project Coordinator, for more information, and to submit reports and photos.

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