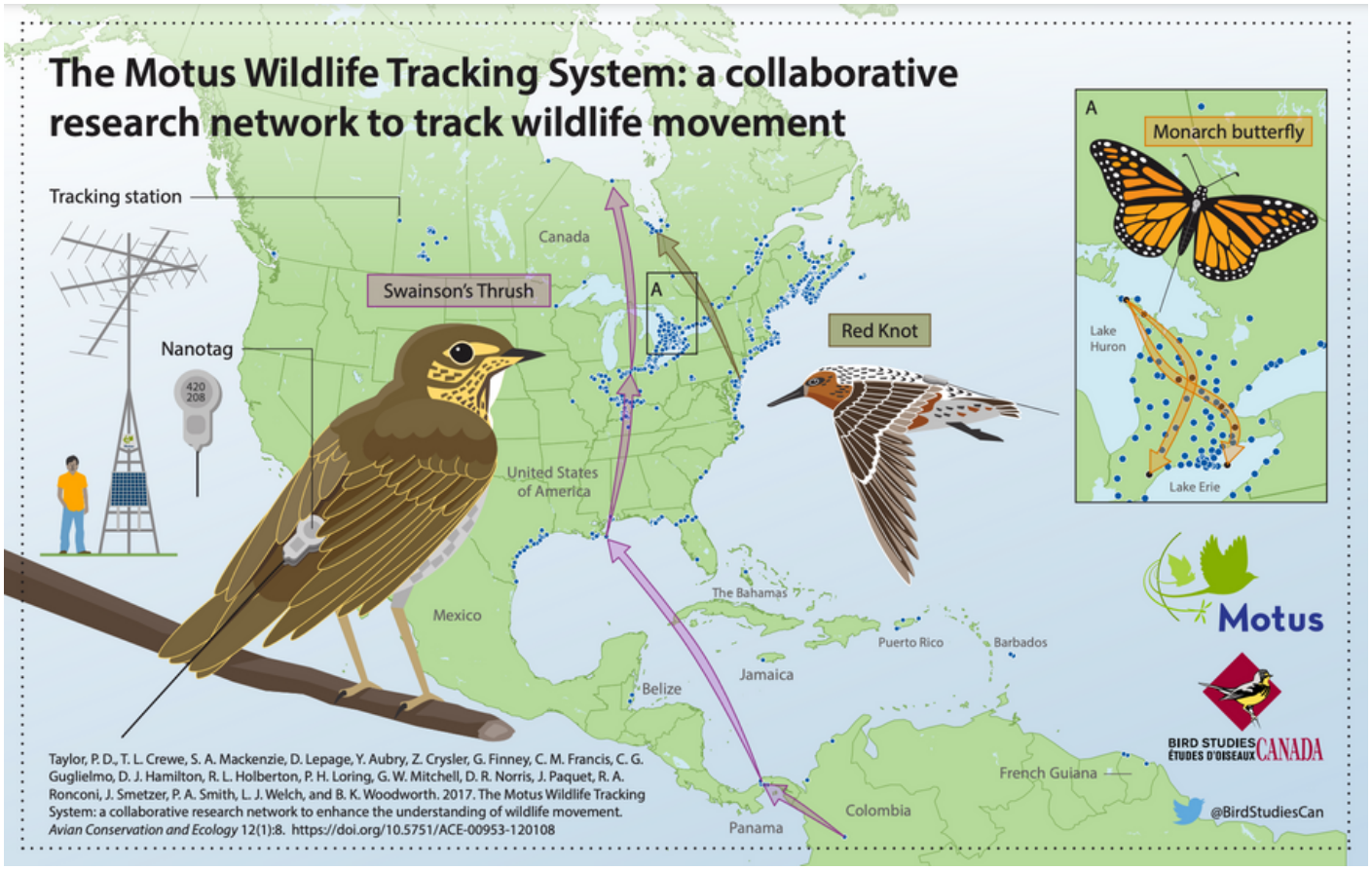
WHAT'S ALL THE MOTUS ABOUT?



"The Motus Wildlife Tracking System (Motus) is an international collaborative research network that uses coordinated automated radio telemetry to facilitate research and education on the ecology and conservation of migratory animals. Motus is a program of Birds Canada in partnership with collaborating researchers and organizations."

Motus.org

Another tool in the tool kit - Automated Radio Telemetry & Motus

Something inspiring happened at the VARC banding and research station in Colony Farm Regional Park this March. A Motus array was installed, providing an opportunity for VARC to study further the migratory movement of Swainson's Thrushes along the Pacific Flyway.

For several years, VARC has noticed some interesting and previously unexplored trends from the banding data collected regarding Swainson's Thrush. It appears that birds captured during the fall are not local breeders but birds from further north. This line of thinking is based on the observation that there is an influx of unbanded birds after the local breeding season, many of which are in flight feather molt.

Banding science could only tell us so much about this unique idea. But now, with a Motus program, researchers can further define the migratory path of Swainson's Thrushes along the Pacific flyway. This new opportunity will also contribute to Swainson's Thrushes' continent-wide monitoring efforts and establish proof that birds breeding further north in Canada are indeed stopping at Colony Farm to initiate and/or complete their annual molt.

Automated radio telemetry uses receivers that automatically record signals from radio transmitters. It is used in various ecological applications, particularly for tracking small animals' migration or determining fine-scale temporal information about movement or behaviour. It is particularly well suited for studies of aquatic organisms and small flying animals.

Collaborative automated radio telemetry uses coordinated arrays of automated stations that monitor the same frequency to detect tagged animals over broader spatial scales. It maximizes the use of equipment operated by many researchers that traditionally may not have had the opportunity to collaborate. Tagged animals are detected on their local array, as well as any other station in the network. Automated radio telemetry harnesses many independent researchers' collective resources into a much greater collaborative effort that expands the scale and scope of everyone's work while maximizing scarce research and conservation dollars.

Motus is the world's most extensive collaborative automated radio telemetry array. Motus is the central hub for detection data from more than 750 receiving stations and metadata from stations (e.g., location, deployment dates, height, antenna bearing) and tags (e.g., species, location and date deployed). Data from across the network is then provided to researchers and a condensed version shared with the public.

With the new Motus technology, this project will continue VARC's ongoing study that began in 2013. It will be in close collaboration between the Vancouver Avian Research Centre, Metro Vancouver, and Motus. No previous monitoring projects have focused on Swainson's Thrushes in the lower mainland of the Vancouver area. So, we look forward to uncovering new data that will ultimately help bird species survive and thrive.

Click here to watch a quick "*Motus Wildlife Tracking Sysytem*" video!