

Status of the Critically Endangered Jamaican Golden Swallow (abbreviated summary edition)

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The Golden Swallow (*Tachycineta euchrysea*) is an aerial insectivore and obligate secondary cavity-nester known exclusively to the Caribbean islands of Jamaica and Hispaniola. The Hispaniolan subspecies (*T. e. sclateri*) was first described in 1866 by the American ornithologist, Charles Barney Cory, and though considered common in the early 1900s, it has become an increasingly rare resident of the highlands of Haiti and the Dominican Republic. The subspecies is currently categorized as vulnerable by the International Union for Conservation of Nature (IUCN). Researchers have been studying the life history and breeding biology of the Hispaniolan subspecies since 2012, and initial conservation efforts are currently underway. The nominate Jamaican Golden Swallow race (*T. e. euchrysea*) was first described in 1847 by the English naturalist, Philip Henry Gosse, and was always considered uncommon, locally distributed, and endemic to Jamaica. Sadly, the Jamaican Golden Swallow subspecies has not been unequivocally observed since the late 1980s.

Gary Graves, Curator of Birds at the Smithsonian Institution's National Museum of Natural History in Washington, D.C., conducted island-wide surveys for the Jamaican Golden Swallow from 1994 to 2012. Though his extensive search efforts did not produce a positive sighting, two large tracts of remote land remained to be thoroughly explored. Cornell University graduate student, Justin Proctor, who has dedicated his Master's thesis work to studying the Hispaniolan subspecies of Golden Swallow, was asked by Graves and the Smithsonian Institution to lead a team into Jamaica to finish the exhaustive search for the critically endangered Jamaican Golden Swallow. Proctor was joined by Cornell students John Zeiger and Seth Inman, and from January 15th to February 12th (29 days), and from March 3rd to 30th (28 days) 2015, the team targeted their search efforts on the Cockpit Country and Blue Mountain regions of Jamaica.

Survey locations were selected based on several – often overlapping – criteria, including (1) areas where known historical sightings of the species had occurred, (2) remote, difficult to access terrain as well as large parcels of private property, both of which are greatly under-surveyed, if ever surveyed at all, by bird watchers and/or ornithologists, (3) habitat that closely resembled that which is currently used by the Hispaniolan Golden Swallow and (4) regions not covered – as well as those deemed worthy of repeat surveying – by earlier aerial insectivore surveys conducted island-wide by Graves (2013).

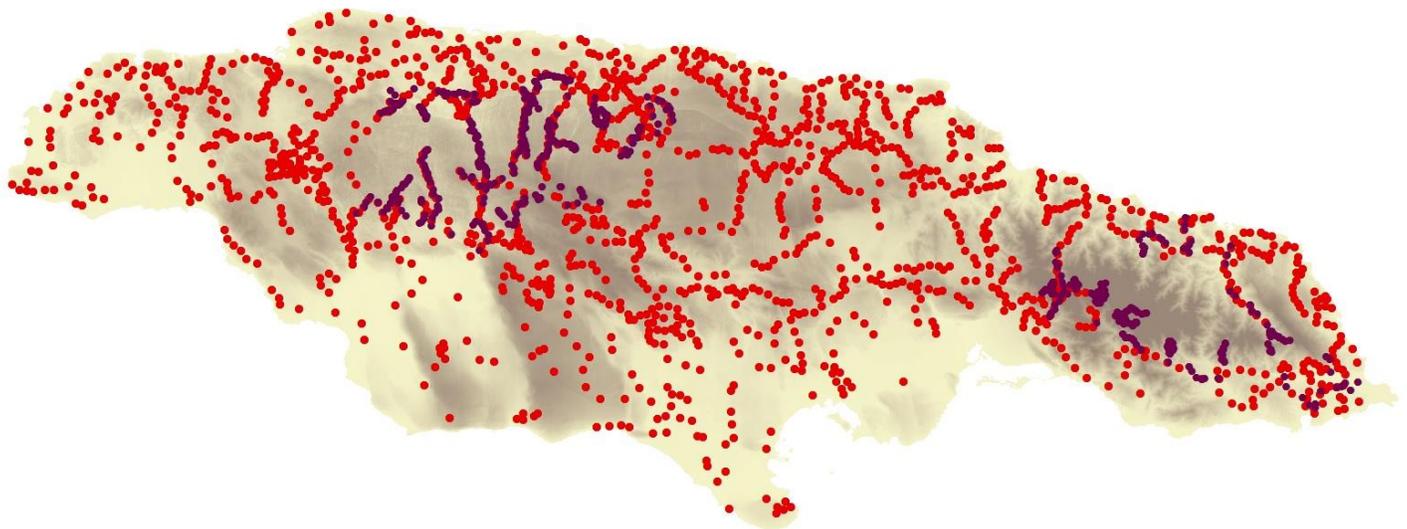


Hispaniolan Golden Swallows in Parque Valle Nuevo, Dominican Republic. (From left to right) Adult in flight; adult perched overtop of artificial nest-box; 25-day-old chicks in nest-box, one day prior to fledging.

The team performed 634 standardized point counts while surveying more than 300 miles of remote landscape on foot. The presence and identification of all diurnal aerial insectivores were determined at each designated census site. Three species of diurnal aerial insectivores were observed during the surveys, including the White-collared Swift (*Streptoprocne zonaris*), Antillean Palm Swift (*Tachornis phoenicobia*), and Cave Swallow (*Petrochelidon fulva*). One additional species, the Barn Swallow (*Hirundo rustica*) was observed on two separate occasions during the study period but was not recorded on any of the standardized censuses. Every swallow species seen was positively identified by the observers. No Golden Swallows were observed, nor were any other *Tachycineta* species.

Golden Swallows are not a cryptic avian species. Their acrobatic manner of foraging combined with their often curious demeanor towards observers makes them an agreeable search target. That being said, historical and contemporary observations (the latter referring to the Hispaniola subspecies) confirm that they commonly intermix with other aerial insectivores when foraging. These mixed foraging flocks can occur from ground level to well over 100 meters high, and are often composed of extremely fast-moving congregations of swallows and swifts. For most bird-watchers, this scenario has been a notoriously challenging one for identifying individual birds to the species-level. In response to this, the aerial insectivore surveys carried out by Graves and Proctor *et al.* focused specifically on closely analyzing these mixed flocks so as to further dismiss the likelihood that any persisting Jamaican Golden Swallows had gone unnoticed while incorporated into these flocks.

More than 25 years have passed since the last confirmed sighting of the Jamaican subspecies. Since then, there have been no sightings by investigators specifically targeting the subspecies nor any reports from local or international birdwatchers. Furthermore, there is no evidence that either Golden Swallow subspecies has ever migrated off-island. Despite the extremely minute probability that a remaining population continues to persist undetected, at this point it should be confidently declared that the Jamaican Golden Swallow, *Tachycineta euchrysea euchrysea*, is extinct.



Standardized census sites for Golden Swallows in Jamaica (N = 2,068). Red circles indicate individual census sites conducted by Gary R. Graves (n = 1,434) and dark purple circles indicate census sites conducted by Proctor *et al.* (n = 634). Collectively, surveys were conducted from 1994 to 2015. Map shading depicts topography, with colors darkening as elevation increases.

Supplemental readings:

- Information on the Hispaniolan Golden Swallow: www.thegoldenswallow.org
- Graves' work and publication on the Jamaican Golden Swallow: www.journals.cambridge.org; electronic version available in Volume 24, Issue 02
- Blog entries covering the Proctor *et al.* survey expeditions for Jamaican Golden Swallow: <https://raxacollective.wordpress.com/category/golden-swallow/>
- Peer-reviewed publication on the Status of the Jamaican Golden Swallow: in prep

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