Other: Edible-nest Swiftlet (< 1983), Gray Swiftlet (1983-1990), monotypic Uniform Swiftlet (1991-1992), Guam Swiftlet (1995-2002), Island Swiftlet, etc. (see below)

## naturalized (non-native) resident, recently established

The numerous species of *Aerodramus* swiftlets inhabiting islands in the w. tropical Pacific and Indian oceans have a confusing taxonomic and nomenclatural history (Pratt 1986, 1987; Browning 1993); for example, swiflets endemic to Guam and the Northern Mariana Is (AOU 1983, Reichel & Glass 1991, Wiles & Woodside 1999, Wiles 2005) have received vernacular names Guam, Gray, Island, Edible Nest, Mossy-nest, Uniform, and Vanikoro swiftlet, and scientific names ranging from *Aerodramus vanikorensis* to *Collocalia inexpectata bartshi* (*cf.*. Pyle 1977-2002; AOU 1983, 1991, 1995, 1997, 2002). Other species of *Aerodramus* use saliva to build their famous "edible nests" for soup, but Mariana Swiftlet (*bartschii*) builds its nest largely out of vegetation (Berger 1981). These swiftlets were introduced to O'ahu in 1962 by the Hui Manu Society "to provide esthetic enjoyment to persons who would appreciate observing and studying this interesting species" (Woodside 1970), and they were also envisioned to provide some control of mosquitos. This is the only targeted introduction of a swift or swiftlet known around the world (Long 1981, Lever 1987).

On 15 May 1962, HDFG released 125-175 swiftlets from Guam in lower Niu Valley in east Honolulu, *O'ahu* (Bowles 1962), and about 210 on 29 January 1965 more at Waimea Falls on the north shore of O'ahu (Woodside 1970). One of the birds died during the 1962 air shipment (Wiles and Woodside 1999) and was preserved (BPBM 152398; HRBP 5436 of specimen). Donagho (1970) reported that the birds "took off straight up into the air" and were not seen during 1962-1965 other than on release dates, although Wiles & Woodside (1999) report several unsubstantiated sightings of swiftlets observed in1962-1964 in the vicinity of Niu Valley, along Round Top Drive in Honolulu, and at Niu Beach and nearby Kuli'ou'ou shoreline.

During 29 Nov-4 Dec 1969, Donagho (1970) saw up to seven at once flying over a *Eucalyptus* grove at 110 m in North Halawa Valley, central Ko'olau Mountains, 17-32 km from the Niu and Waimea release sites at either end of the Ko'olau chain; Donagho estimated a population of 25 at the time (see also Shallenberger 1977b; *E* 38:56). In Jan 1978 the swiftlets' nesting site was discovered at the upper end of the valley on a tributary of the south fork of North Halawa stream, elevation about 425 m (*E* 39:18). The site is at the base of a tall waterfall in a man-made hydrologic tunnel (Shallenberger & Vaughn 1978; Wiles & Woodside 1999). Yearly to biennial counts of active nests in the tunnel varied from 10-20 through 1997 and a careful census of incoming birds at dusk tallied 66 individuals 17 Nov 1997 (*E* 48:30, HWN 4[3]:8, Wiles and Woodside 1999; HRBP 5861). Feathers and an egg found in the nesting cave after the 1993 season were saved (BPBM 179310). Nest counts increased to 33 in 1998 and 49 in 2000, but decreased to none in 2002-2003, during which time human and dog tracks in the cave suggested that disturbance may have caused the swiftlets to abandon the site. By Mar 2004 the swiftlets had returned and at least 9 active were counted, followed by 23 active

nests a year later. The nesting swiftlets were monitored in 2005-2011 by Johnson (2015). Peak nesting occurs in May-Sep but eggs are laid year-round, and the population of this colony was estimated at 142 individuals during this period. Depredation by rats of over 30 swiftlets was recorded in 2006, 2007, and 2009, and control efforts for rats was initiate. Searches were made for additional breeding colonies but none were found.

Between the 1970s and mid-2010s, foraging swiftlets were observed regularly in North Halawa Valley (Shallenberger 1976, Shallenberger & Vaughn 1978; E 37:40, 38:56, 40:122, 44:89, 47:42, 47:94) and along adjacent Aiea Loop/Ridge trail (e.g., E 53:31-32; HRBP 6725-6728), leading up to the vicinity of the nesting cave. They have been rarely reported along other nearby hiking trails, at Halawa Ridge, South Halawa Valley, Manana Trail (e.g., E 39:33, 64), Pacific Palisades, Moanalua Valley (e.g., Shallenberger and Vaughn 1978, Berger 1981), Pauoa Valley, and up to and over the crest of the Ko'olau Ridge across to the upper Haiku and Kahulu'u Valleys above Kaneohe (e.g., E 45:65). Since the 1965 release there have been no substantiated swiftlet sightings anywhere on O'ahu farther from the nesting cave than Pacific Palisades to the NW and Pauoa Valley to the SE. Unsubstantiated reports come from the Waimea Valley Audubon Society along the N coast, at the Honolulu Airport, and at Koko Head. On the Honolulu Christmas Bird Count observations only picked up in the 1990s-2014 (Graph) due to targeted observer effort. During 2010-2016 a high count of 10 were recorded on the Aiea Loop Trail 6 Jan 2015, and a substantiated observation from the lowlands was of one during a storm at the base of Moanalua Valley 2 Sep 2016.

Although identification and population establishment in the Hawaiian Islands was considered unconfirmed by the AOU (1983), the AOU (1998) accepted it to their main list based on work by Browning (1993).

## Acronyms and Abbreviations

## Literature cited

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