

FIRST OBSERVED ROOST SITE OF THE VERVAIN HUMMINGBIRD (*MELLISUGA MINIMA*)

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Abstract: An observation of a roost site of a male Vervain Hummingbird in the Dominican Republic on 7 November 2010 is the first for this species. The bird chose an entirely exposed position on a very thin twig, < 0.5 cm diameter, about 8 m above the ground, in the outer canopy of a small tree over a trail near the crest of a hill for its roost.

Key words: Dominican Republic, *Mellisuga minima*, roost site, Vervain Hummingbird

Resumen: PRIMER REGISTRO DE UN DORMIDERO DEL ZUMBADORCITO (*MELLISUGA MINIMA*). El descubrimiento de un dormitorio de un macho Zumbadorcito (*Mellisuga minima*) en la República Dominicana el 7 de noviembre de 2010 representa el primer registro para la especie. Un macho de la especie escogió un sitio sin protección en una ramita pequeña, diámetro < 0.5 cm, a una altura de 8 m en el exterior del dosel de un pequeño árbol, arriba de un sendero al tope de una colina.

Palabras clave: dormitorio, *Mellisuga minima*, República Dominicana, Zumbadorcito

Résumé : PREMIÈRE OBSERVATION D'UN SITE DE REPOS DU COLIBRI NAIN (*MELLISUGA MINIMA*). Le site de repos d'un colibri nain a été observé pour la première fois, en République dominicaine, le 7 novembre 2010. Un individu mâle a choisi comme site de repos une situation très exposée, sur un rameau très fin (< 0,5 cm de diamètre), à environ 8 mètres du sol, dans la canopée externe d'un petit arbre au-dessus d'un sentier, sur la crête d'une colline.

Mots clés : Colibri nain, *Mellisuga minima*, République dominicaine, site de repos

Roost site selection, a daily decision of hummingbirds, is difficult to document in the field because the birds are small (Carpenter and Hixon 1988). The choice of a roost involves selection of a suitable thermal microenvironment as well as an appropriately secure location. Potential conflicts between thermoregulatory considerations and predator avoidance complicate evaluation of fitness consequences of roost site selection (Skutch 1972). Assessment of considerations important in other microhabitat selections is perhaps less problematical (Calder and Booser 1973, Brown 2000, Molokwu *et al.* 2010). Any observed roost selection by a free-living hummingbird is noteworthy.

Published accounts of hummingbirds in the Birds of North America, Neotropical Birds Online series, and elsewhere include few direct observations of roost sites in nature. Schuchmann (1999) presented little data on roosting behavior of hummingbirds. Calder and Booser (1973) investigated incubating female Broad-tailed Hummingbirds (*Selasphorus platycercus*), whereas Pearson (1953) and Carpenter (1974) observed Andean Hillstars (*Oreotrochilus estella*) at their cave roosts. Carpenter and Hixon (1988) photographed a single roost event by a migrating Rufous Hummingbird (*Selasphorus rufus*). Skutch (1972) described a Long-billed Starthroat

(*Heliomaster longirostris*) repeatedly roosting in thin, exposed twigs in the top of a dying guava tree (*Psidium guajava*) near the naturalist's home in Costa Rica in 1968. Skutch (1964, 1973) further attributed roosting on exposed perches to Scaly-breasted Hummingbird (*Phaeochroa cuvieri*).

On 7 November 2010, at 1806 in Caño Hondo, near Sabana de la Mar, Hato Mayor Province, Dominican Republic (19.0571°N, 69.4565°W), I watched a male Vervain Hummingbird (*Mellisuga minima*) fly to a roost. The site was in the buffer zone of Parque Nacional Los Haitises, at an elevation 35 m above mean sea level, near the top of one of the characteristic limestone hills that give the park its name. The roost was about 8 m above the ground over a trail where the bird chose an entirely exposed position on a very thin twig, < 0.5 cm diameter, in the outer canopy of a small tree atop (Fig. 1). The entire roost site swayed through nearly 1 m of horizontal space as the winds of remnant Tropical Storm Tomás buffeted the locality. The bird sat immobile during the breeze, and did not move when I photographed the spot repeatedly at 1815. I returned with Carol Lively at 1825 and the bird was still there, perched in posture similar to that reported by and shown in the photograph of *Mellisuga helena* in Schuchmann (1999). A return visit at 2200



Fig. 1. Location of roost site (indicated by a circle) of a male Vervain Hummingbird (*Mellisuga minima*) at Los Haitises, Sabana de la Mar, Provincia Hato Mayor, Republica Dominicana, on 7 November 2010. Original color photograph taken southwest of the tree with an Olympus Stylus 6020, F/3.9, 1/60 sec, ISO-80, by Paul B. Hamel.

with Jorge Brocca revealed the bird in the same location and in the same perched position. At that time it was too dark to take photographs with our equipment. Local temperature just after dawn on 8 November 2010 was 23°C. By 0800 the following morning the bird had left the roost. As this observation was made on the last night of our stay at the location, no opportunity existed for a followup search.

No roost for Vervain Hummingbird has been reported in the literature as reviewed by Clark (2009). I suggest that any future observation of a roost of a hummingbird in the wild, with attendant documentation of location, date, situation, overnight temperature, and weather on the night in question, is a valuable addition to our tiny base of knowledge of this potentially dangerous daily event in the life of these birds.

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LITERATURE CITED

- BROWN, J. S. 2000. Foraging ecology of animals in response to heterogeneous environments. Pp. 181–215 in *The ecological consequences of environmental heterogeneity* (M. J. Hutchings, E. A. John, and A. J. A. Stewart, eds.). Blackwell, Oxford, UK.

- CALDER, W. A., III, AND J. BOOSER. 1973. Hypothermia of Broad-tailed Hummingbirds during incubation in nature with ecological correlations. *Science* 180:751–753.
- CARPENTER, F. L. 1974. Torpor in an Andean hummingbird: its ecological significance. *Science* 183:545–547.
- CARPENTER, F. L., AND M.A. HIXON. 1988. A new function for torpor: fat conservation in a wild migrant hummingbird. *Condor* 90:373–378.
- CLARK, C. J. 2009. Vervain Hummingbird (*Mellisuga minima*). In *Neotropical Birds Online* (T. S. Schulenberg, ed.). Cornell Lab of Ornithology, Ithaca, New York. neotropical.birds.cornell.edu/portal/species/overview?p_p_spp=25694.
- MOLOKWU, M. N., J.-Å. NILSSON, U. OTTOSSON, AND O. OLSSON. 2010. Effects of season, water and predation risk on patch use by birds on the African savannah. *Oecologia* 164:637–645.
- PEARSON, O. P. 1953. Use of caves by hummingbirds and other species at high altitudes in Peru. *Condor* 55:17-20.
- SCHUCHMANN, K. 1999. Family Trochilidae (Hummingbirds). Pp. 468-535 in *Handbook of the birds of the world*. Vol. 5. Barn-owls to hummingbirds (J. del Hoyo, A. Elliott, and J. Sargatal, eds.). Lynx Edicions, Barcelona, Spain.
- SKUTCH, A. F. 1964. Life history of the Scaly-breasted Hummingbird. *Condor* 66:186-198.
- SKUTCH, A. F. 1972. Studies of tropical American birds. Publications of the Nuttall Ornithological Club, No. 10. Nuttall Ornithological Club, Cambridge, Massachusetts. 281 p.
- SKUTCH, A. F. 1973. *The life of the hummingbird*. Crown Publishers, New York.