

Johnsgard 1988; N = 57). In Europe, it appears to be better documented, but still unusual. Of 570 Long-eared Owl nests documented in Britain, Finland, and Netherlands, only 1.9% (N = 11) were found on the ground (Glue 1977; N = 256, Mikkola 1983; N = 101, Wijnandts 1984; N = 213).

In past cases of ground-nesting Long-eared Owls, Bent (1938) and Glue (1977) both suggest that ground-nesting was due to a scarcity of suitable tree nests or suitable platforms. We do not believe the ground nest in western Montana can be explained by a scarcity of suitable sites, since five vacant stick nests occurred within 200 m of the ground-nest. And, three nests had been used by Long-eared Owls in the past.

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**Gray Flycatcher predation on a hummingbird.**—On 28 July 1991 at 08:08 EST at the Archbold Tropical Research Center, Springfield Field Station (15°21'N, 61°23'W), Dominica, West Indies, we saw a Gray Flycatcher (*Tyrannus dominicensis*) flying over a lawn with

a large food item in its bill. The habitat around the center is deciduous forest, mature second-growth, and cultivated plots. The flycatcher perched on an electrical wire approximately 20 m from the observers and 6 m above the ground. The prey was identified as a live hummingbird of the genus *Eulampis*, but its specific identity could not be established at that time or later. Two similar species occur at that site, the Purple-throated Carib (*E. jugularis*) and the Green-throated Carib (*E. holosericeus*) (pers. obs.; Chavez-Ramirez and Dowd 1992).

The flycatcher held the hummingbird sideways across its bill and killed it by beating the prey's head and neck against the wire. This technique, which involves vigorous lateral downward movements of the predator's head, has been described for Gray Flycatchers killing large insects (Wetmore 1916; pers. obs.) and small fishes (Lefebvre and Spahn 1987). The hummingbird probably died from the first few strokes; thereafter, it was inert and its neck was loose. The flycatcher then tossed the hummingbird a few cm up in the air, caught it in its bill so that the hummingbird's head was now hanging on the other side of the flycatcher's head, and hammered it again on the wire. This maneuver was repeated two or three times; on each occasion, the flycatcher struck the hummingbird's head two to five times against the wire. The flycatcher then tossed its prey up in the air and tried to catch it by the head, most probably to be able to swallow it head first. On the second such attempt, the flycatcher dropped the hummingbird which fell into 2 m high grass. The flycatcher almost immediately left. We were unable to find the corpse. The total observation lasted less than 2 min.

Apart from cases involving raptors (Falconiformes and Strigiformes) and shrikes (Laniidae), there are very few reports of birds preying on healthy adult birds. Chuck-will's-widows (*Caprimulgus carolinensis*) catch and swallow small birds (Terres 1982). Davidson (1994) reported that within a period of 22 days a single Common Grackle (*Quiscalus quiscula*) killed and consumed at least 39 small passerines of four species. Wright (1962) observed a Northern Oriole (*Icterus galbula*) killing a Ruby-throated Hummingbird (*Archilochus colubris*) at a flowering tree, but the hummingbird was dropped before it could be consumed. There are three reports of Brown-crested Flycatchers (*Myiarchus tyrannulus*) successfully preying on hummingbirds (Snider 1971a, b; Gamboa 1977). Our report provides another case of a tyrannid preying on a hummingbird.

Hummingbirds seem to be the most frequent avian prey of non-raptorial birds, but they rarely are consumed by raptors. There are three reports of Merlins (*Falco columbarius*) preying on hummingbirds (Sprot 1927, Lowery 1938, Mayr 1966) and one observation of a Sharp-shinned Hawk (*Accipiter striatus*) catching an Anna's Hummingbird (*Calypte anna*; Peeters 1963). A hummingbird bill was also found in the nest of a Puerto Rican Sharp-shinned Hawk (Apanius, unpubl. obs.). The small size of hummingbirds probably makes them unattractive for most true predators while, on the other hand, this same characteristic and their slow speed when hovering makes them vulnerable to opportunistic predation by large insectivorous birds.

The Gray Flycatcher feeds mainly on large insects taken on the wing or captured in foliage or on the ground (Bent 1942). The species also regularly eats berries and, more rarely, *Anolis* lizards (e.g., Wunderle 1981), fishes (Lefebvre and Spahn 1987), and hummingbirds (this report). These observations support the suggestion of Wunderle (1981) that certain insectivorous birds may broaden their diet opportunistically by catching novel prey using hunting techniques normally used to capture large insects. However, there was no indication in the case reported here that predation on an alternative prey was the consequence of a scarcity of insects, as was hypothesized for hummingbirds caught by Brown-crested Flycatchers in Arizona (Snider 1971a, b).

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