

## ANNA'S HUMMINGBIRDS WITH HYMENOPTERA IMPALED ON BILLS

MICHAEL C. LONG, Eaton Canyon Nature Center, 1750 N. Altadena Dr., Pasadena, California 91107

In November 1989, Nancy Fraser, Eaton Canyon Nature Center staff, observed at her feeder in Altadena, Los Angeles County, California, a male Anna's Hummingbird (*Calypte anna*) in an apparently weakened condition and with a dark "lump" on its bill. The bird was observed for more than a week, perching at the feeder for periods of up to several hours. On 19 November the hummingbird was increasingly lethargic and harassed by other hummingbirds when it attempted to feed. I suggested that Fraser attempt to capture the bird to provide aid and examine the bill. She was able to remove the bird from its perch by hand, but it expired within minutes. Examination of the lump on the bill revealed the intact head of yellowjacket wasp (*Vespula pensylvanica*), pierced from front to back directly between the compound eyes. The wasp head lay toward the distal end of the bill, approximately 4 mm from the tip (Figure 1).

In early 1990, Russ Anderson brought to Eaton Canyon Nature Center a dead male Anna's Hummingbird with a dark, rounded mass impaled about halfway down the bill. The bird had been found dead in spring 1989 (precise date not noted) in a yard at 324 Foothill Avenue, Sierra Madre, Los Angeles County. The hummingbird was mummified, still clinging with both feet to a branch of an acacia (?) tree. Roy Snelling (Section of Entomology, Los Angeles County Natural History Museum) examined the mass, determining it to be the thorax of a bumblebee (*Bombus* sp.) (Figure 2).



Figure 1. Head of a yellowjacket wasp (*Vespula pensylvanica*) impaled on the bill of a male Anna's Hummingbird.

Photo by Dede Gilman

## NOTES

Body fluids from the insects and perhaps dried sugar solution from the feeder (noted by Fraser) apparently “glued” the heads to the bills and the birds were unable to remove them. Both hummingbirds probably died because of an inability to feed properly with the mandibles held tightly together by the insects’ hard, chitinous exoskeletons. Both specimens have been deposited at the Los Angeles County Natural History Museum (107527 and 107528).

A literature search revealed no mention of insects or insect parts being found on hummingbird bills. Hummingbirds are well known to supplement their diet of flower nectar with small insects and other arthropods such as aphids, gnats, and spiders. Bees and wasps are not generally appropriate hummingbird prey items because of their large size and difficulty of handling relative to the hummingbird’s bill size and shape. Hummingbirds do, however, “zealously guard” their feeding territories, driving off hawk moths, butterflies, other hummingbirds, and even bees that might compete for nectar (Carpenter et al. 1983). Miller and Gass (1985) summarized the relatively few known predators of hummingbirds, listing among insects only praying mantids (two instances) and referring to Grant’s (1959) description of attacks on hummingbirds by wasps. Bent (1940:382–383) discussed hummingbird and bee interactions and related his observations of an Anna’s Hummingbird seen to “thrust its bill through a struggling mass of the insects” to reach sugar syrup. He also “watched one attack bees flying around an agave stalk, darting at one after another with open bill as if trying to bite them.” Interestingly, Luis Baptista (pers. comm.) described a female Anna’s Hummingbird that died of starvation impaled on a rose leaf. He surmised that the bird impaled itself on the leaf during an aggressive chase of an enemy.



Figure 2. Thorax of a bumblebee (*Bombus* sp.) impaled on the bill of a male Anna’s Hummingbird.

Photo by Dede Gilman

## NOTES

An antagonistic encounter is one explanation for these bee and wasp parts impaled on hummingbird bills. It would seem that to generate the force necessary for its bill to pierce a bee or wasp the hummingbird would have to have pinned the insect against a hard surface. If struck in flight, whether intentionally or by accidental collision, the insect presumably would be deflected rather than impaled. Alternatively, a hummingbird might accidentally pierce a hymenopteran by inserting its beak into a flower corolla or feeder tube containing the insect.

I thank Nancy Fraser and Russ Anderson for careful observations and submitting the hummingbird specimens. I gratefully acknowledge the insect identifications by Roy Snelling and the careful review of the manuscript and helpful comments of Kimball Garrett, Tim Manolis, and Luis Baptista. Dede Gilman, photographer extraordinaire, kindly photographed the specimens.

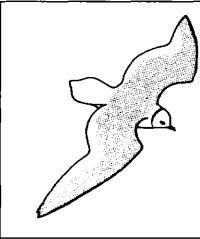
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*Accepted 9 March 1993*

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