gland, 1963). Such chases might, from time to time, result in a large paralyzed katydid being dropped by the pursued insect. It seems possible then, that species which hunt large flying insects may occasionally encounter and chase digger wasps, picking up dropped prey; in addition, House Sparrows and other ground-foraging birds such as robins are likely to enter a wasp nesting area where they may find large paralyzed katydids lying on the ground near a burrow entrance. It is not difficult to cause a wasp to abandon her prey. A short lunge or run at a wasp dragging a katydid over the ground might yield a large food item.

There are 2 characteristics of sparrows which no doubt play an important role in the appearance of kleptoparasitic behavior in 2 separate populations of this species. First, the House Sparrow is a particularly opportunistic and adaptable species, easily exploiting new and abundant sources of food (Potter, Condor 33:30, 1931; Richardson, Condor 40:126–127, 1938; Fisher and Hinde 1949; Wilson, Emu 54:69, 1954; Hobbs, Emu 55:202, 1955; Mountfort, Br. Birds 50:311–312, 1957; Purser, Br. Birds 52:199–200, 1959; Summers-Smith, 1963). Kleptoparasitism appears to be a secondary source of easy food on which sparrows specialize at certain times of the day. Secondly, House Sparrows forage in flocks which increases the opportunities for learning the chance discoveries of others. Kleptoparasitic behavior could easily arise by trial and error and observational learning in a species known for its catholic tastes and opportunistic feeding habits (Kalmbach 1940; Kendeigh, Ornithol. Monogr. 14:1–2, 1973; Summers-Smith 1963).

*Acknowledgments.*—I thank Richard Dawkins, Malte Andersson, Chris Barnard and Suzanne Hamilton for reading the manuscript. I am also indebted to Gary Wagenbach and Carleton College, Northfield, Minnesota, for providing the study site.—H. JANE BROCKMANN, *Dept. Zoology, Univ. Florida, Gainesville, Florida 32611.* *Accepted 29 July 1979.*

*Wilson Bull.*, 92(3), 1980, pp. 398–399

**Ruby-throated Hummingbirds feed at night with the aid of artificial light.**—Hummingbirds feed frequently throughout the day, from before dawn to after sunset (Grant and Grant, Hummingbirds and Their Flowers, Columbia Univ. Press, New York, New York, 1968). We have found no reference to nocturnal feeding by hummingbirds, other than in aviaries (Scheithauer, Hummingbirds, T. Y. Crowell Co., New York, New York, 1966). Typically, at night, hummingbirds may become torpid, and by lowering metabolic rate conserve energy at a time when they are unable to feed (Grant and Grant 1968). Recent results indicate that torpor is used only in "energy emergency" situations at a minimum "threshold" of energy reserves and not to reduce nocturnal energy expenditures when net gains during the day were sufficient for overnight expenditures (Hainsworth, Collins and Wolf, Physiol. Zool. 50:215–222, 1977).

A Ruston, Louisiana homeowner, Mrs. Agnes Lewis, had observed nocturnal feeding by Ruby-throated Hummingbirds (*Archilochus colubris*) during September 1977. The birds, never observed during the day, were observed at night when the flower beds were illuminated. Nocturnal activity occurred from dusk to sometime just before 24:00 CDST in the presence of a single, nearby (within 7 m) carport light and distant streetlights. Sunset occurs from about 19:45–19:59 CDST during September in northern Louisiana.

The yard contained a lawn, trees, hedges and flowers, including marigolds (*Tagetes* spp.), red cannas (*Canna* sp.) and white four-o-clocks (*Mirabilis* sp.). No artificial hummingbird feeders were present in the neighborhood.

We made observations to verify the nocturnal feeding activity of Ruby-throated Humming-

birds (not moths), as follows: (1) flower beds were observed from 21:15–21:45 on 22 September 1977; temperature 24°C; 1 male and 1 female Ruby-throated Hummingbird were observed feeding on *Mirabilis* for about 5 min at 21:30; carport light on; and (2) flower beds were observed from 20:45–22:00 on 27 September 1977; temperature 20°C; a male began feeding on *Mirabilis* at 20:57; a female appeared at 21:09; both continued to feed until 21:25 when they were frightened; they did not return; the carport light was on.

The white tubular flowers of *Mirabilis* were open only late in the day and at night; they were the only flowers known to have been used. Grant and Grant (1968) mention that flowers in North America favored by birds are characteristically open throughout the day and yield large quantities of nectar. Our observations indicate that *Mirabilis* not only offered the hummingbirds a source of nectar late in the day, but with the aid of artificial light, a source of nectar that was used well into the night. During the cooler nights of October (observations on evenings of 3 and 11 October) all of the *Mirabilis* flowers remained closed with most of the blooms showing signs of deterioration by the middle of the month. No hummingbirds were present during these last 2 observations.

To what extent resident or migratory hummingbirds make use of artificial man-made light sources to feed at night is poorly documented, but this type of nocturnal feeding may be more common than realized in the presence of illumination and certain night blooming flowers around human domiciles and cities in general.—JOHN W. GOERTZ, ANGELA S. MORRIS AND STEPHEN M. MORRIS, *Dept. Zoology, Louisiana Tech Univ., Ruston, Louisiana 71272.* *Accepted 18 July 1979.*

*Wilson Bull.*, 92(3), 1980, pp. 399–402

**Response to novel food in captive, juvenile Mockingbirds.**—Simple feeding experiments were made with handreared, juvenile Mockingbirds (*Mimus polygottos*) to test 2 hypotheses: (1) birds would not increase eating efficiency with regard to new foods; and (2) birds would not eat brightly-colored (and possibly distasteful) insects that are found in their habitat. These hypotheses have not been tested in Mockingbirds, although many studies have been made on aspects of their biology (Horwich, Wilson Bull. 81:87–93, 1969; Howard, Evolution 28:428–438, 1974; Barrows, Avicult. Mag. 84:51–56, 1978) and on bird avoidance of distasteful foods (Alcock, Am. Midl. Nat. 89:307–313, 1973, and references therein).

Nine nestling Mockingbirds were obtained within 32 km of Washington, D.C.; 2 birds were nestmates. Birds were handreared, and when at least 17 days old, they were individually maintained in wire and cardboard cages that were about 0.2 $m^3$. When birds could feed themselves, they were given liberal amounts of chopped fruits, vegetables and dog food and provided with bowls of water. Birds were between 2 and 9 months (juvenile status starts at 40 days, adulthood at 9 months [Horwich 1969]) when they were presented with novel foods. Some insects used in experiments were killed by freezing and defrosted to room temperature before presentation to birds. Fruits and dead insects were presented on white cardboard discs 10 cm in diameter. One investigator presented a given experimental food (Table 1). Live cockroaches (*Blattella*) were presented in glass bowls (6 cm deep and 12 cm in diameter) lined with white filter paper and coated with petroleum jelly on their sides to prevent escape. *Desmodium* loment articles (sections with 1 seed, 4 × 7 mm) were also presented. During food presentations, observers were 1 m from birds. A contact was recorded when a bird pecked at, or picked up, a food item. Stopwatches were used to time behavior.

Each of 9 birds was presented with *Viburnum* fruits 5 times. Presentations were made