

## EASTERN WOOD-PEWEE ATTEMPTS TO FEED KILLDEER CHICKS

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**Abstract.**—In July 1988, a wild Eastern Wood-Pewee (*Contopus virens*) was observed attempting to feed two captive Killdeer (*Charadrius vociferus*) chicks throughout one day. The Killdeer were in an open air pen close to a forest edge. This was an unusual adoption, involving an altricial species feeding precocial young. Apparently vocalizations of the Killdeer chicks were enough to elicit a feeding response in the adult pewee.

### **INDIVIDUO DE *CONTOPUS VIRENS* INTENTA ALIMENTAR PICHONES DE *CHARADRIUS VOCIFERUS***

**Sinopsis.**—En julio de 1988 un individuo de *Contopus virens* fue observado, a lo largo de un día, tratar de alimentar dos pichones cautivos de *Charadrius vociferus*. Los polluelos se encontraban en una jaula al aire libre cercana al borde de un bosque. Aparentemente la vocalización de los pichones fue lo que estimulo la alimentación por parte del ave adulta.

Adoption or feeding of unrelated young by conspecifics appears to be fairly common in both altricial and precocial bird species (Bowman 1983, Flemming 1987, Hayes et al. 1985, Hitchcock and Mararchi 1985, Howitz 1986, Welty and Baptista 1989). However, observations of natural interspecific adoptions, not the result of nest parasitism, are limited (Abraham 1978, Breihagen 1984, Rowley and Chapman 1986, Southern 1952, Welty and Baptista 1989). I found no records of natural adoptions mixing parent and young of altricial and precocial species. This paper documents the attempted feeding of Killdeer (*Charadrius vociferus*) chicks by an Eastern Wood-Pewee (*Contopus virens*) adult. This is an example of a species with altricial young attempting to feed precocial chicks, which are never fed by their natural parents.

The observation site was located on High Island (45°45'N, 85°40'W), Charlevoix County, in northeastern Lake Michigan. As part of another study I constructed a pen for captive rearing young Killdeer. The enclosure was 8.2 × 8.2 m, and evenly divided into four 4.1 × 4.1 m sections. The pen was constructed with plastic mesh attached to 1 m high wood lath, and was open at the top. It was located on open beach adjacent to a mixed hardwood-coniferous forest.

On 14 Jul. 1988, at 0830 two one-day-old Killdeer chicks were placed for the first time in the southeast section of the pen. Four 10-day-old Killdeer chicks already occupied the northeast section of the pen. All of the chicks were observed from a blind placed 2 m from the outside of the pen. Both of the day-old chicks continuously gave distress calls in response to their first day in captivity without their parents. The older chicks did not give distress calls.

At 0923 an Eastern Wood-Pewee appeared and perched on the edge

of the southeastern pen section. The pewee carried a large moth in its bill, and called with a "peweer" vocalization. After 30 s on the perch, the pewee flew down into the pen with the moth. It fluttered directly in front of one of the Killdeer chicks and thrust the moth toward the chick's beak. The Killdeer chick flinched, but did not run or crouch and freeze. The pewee attempted to feed the chick four more times before finally eating the moth itself.

From 0927 to 0931 the pewee was observed hovering and gleaning from a branch 10 m from the pen. After it succeeded in catching a small insect it returned to the pen. This time the pewee made 13 attempts to feed the young Killdeer. It occasionally perched on the pen corner adjacent to the 10-day-old chicks, but it never looked down at them. The older Killdeer chicks responded to the pewee's presence by crouching and freezing. The young Killdeer were never observed taking food from the pewee. When I left the blind at 1030 the pewee was still present. I returned to the blind at 1200 and 1430. On both occasions a pewee was perched on the pen's edge or in nearby bushes. On subsequent days pewees were heard calling from trees 50 m from the pen, but were never seen in contact with the chicks again.

The feeding of young by parent birds is thought to be controlled by an integration of environmental stimuli and the hormonal state of the bird (Emlen and Miller 1969, Holcomb 1979). The primary environmental cues that elicit feeding behavior vary among species. Visual and tactile cues stimulate feeding behavior in birds that have exposed, open nests (Schuchmann 1983). Acoustic cues are important in some hole nesting species (Haartman 1953). In this case the Eastern Wood-Pewee was most likely hormonally primed to feed chicks. The Killdeer distress calls, given in response to separation from their parents, provided an auditory stimulus to the pewee. Although the Killdeer chicks never accepted food from the pewee they continued to call. The pewee attempted to feed the Killdeer chicks the entire period that the distress calls were given, but stopped after the chicks no longer vocalized. Despite the fact that Killdeer chicks are very dissimilar to pewee young in appearance and behavior, the auditory stimulus of their calls produced a strong feeding response in the adult pewee.

#### ACKNOWLEDGMENTS

The captive rearing study was funded in 1988 by the University of Minnesota Agricultural Experiment Station, the Bailey Trust Fund, and the James W. Wilkie Fund for Natural History. I thank F. J. Cuthbert, L. F. Baptista, E. H. Burt, Jr. and an anonymous referee for their comments on this manuscript.

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Received 9 Jan. 1989; accepted 24 Oct. 1989.