Stimuli eliciting bathing behavior in hand-reared hawks.—In the past 2 years I have hand-reared four Sparrow Hawks (*Falco sparverius*) and two Broad-winged Hawks (*Buteo platypterus*) for use in prey-selection experiments. All six hawks were obtained when about 2 to 3 weeks old and were reared in the laboratory. Hawks can be maintained without drinking water and, except as noted below, the hawks had no experience with water after they were removed from the nest.

On 3 July 1967 one of my Sparrow Hawks, then less than 2 months old, was perched on a desk in my office while I was eating lunch. I unwrapped a sandwich and placed the thin, transparent, plastic wrapping (Saran Wrap) on the desk. The bird immediately walked over to the plastic, crouched low upon it, bit lightly at its surface, and moved its beak laterally to and fro across it. The wings were partly abducted with primaries remaining approximately parallel to the body and in contact with the plastic. The feathers of the entire body, but particularly the breast, were raised and spread. The bird raised itself and turned about approximately 15 times, each time returning to the squatting position. This behavior persisted for about 2 minutes and the bird then returned to its perch, wiped its beak, and preened. Several days later, on its second encounter with the plastic, the bird again performed all of the above actions and also fluttered its wings in the manner typical of bathing behavior in this species. The bird was then presented with a white plastic pan filled with water and it bathed in a manner similar to that of an experienced bird except that the fluttering of the wings was not so intense or prolonged and the bird did not become so wet as an older bird. After three or four water baths, the bathing behavior was indistinguishable from that of an adult. The bird was presented first with the plastic, and then with water at irregular intervals for just over a year. The response to the plastic waned slowly, and the bird occasionally tried to bathe on it even at the end of the period, particularly if it had not bathed for a week or two. The bird bathed almost every time it was offered a pan of water.

The behavior of another of my Sparrow Hawks and one of my Broad-winged Hawks was similar except that they ceased to respond to the plastic after three or four baths in water. The remaining Broad-winged Hawk did not respond to the plastic in the first three trials and responded only after its first bath in water; it stopped responding to the plastic after five baths in water.

The remaining two Sparrow Hawks were not tested until 7 months old, and did not respond to the plastic in seven trials but then responded immediately to the first presentation of a pan of water. I later discovered that an overzealous assistant had hand-washed the tails of these two birds under a faucet on several occasions. It is thus impossible to determine whether increased age or limited experience with flowing water led to the lack of response to a plastic surface. One of these birds, after having experienced many water baths, responded on three occasions to the sight of falling rain outside a closed window by dropping its wings and spreading its tail in the identical manner used by experienced birds left out in the rain.

One morning when the Broad-winged Hawks were about 3 months old, their perches were placed on a lawn wet with dew. The birds were stopped short in their attempts to fly by the leashes attaching them to the perches, and the birds made considerable body contact with the wet grass. This contact was immediately followed by bathing behavior.

Naive, newly hatched domestic chicks (*Gallus gallus*) prefer to attempt to drink mercury or solid plastic rather than water, suggesting an innate preference for a bright surface rather than the other stimulus properties of water (Rheingold and Hess, J. Comp. Physiol. Psychol., 50: 417, 1957). My hawks also seemed to recognize a shiny

surface as water and responded with a bathing response. Rheingold and Hess found little change in preference after the chicks had 7 days of experience in drinking water, whereas my results suggest a rapid waning of response to nonreinforcing stimuli. This may be a species difference or due to the difference in age of the two kinds of birds. It is interesting that all of the behaviors of bathing, including bill wiping and prolonged preening after the bath appear to have been "released" by the sight of a plastic surface. One of my birds also responded to the sight of falling water, but it may have learned this from having its tail washed under the stream of a faucet. The sensation of wetness also can produce a bathing response, at least in birds that have had experience with bathing in water.—HELMUT C. MUELLER, *Department of Zoology, University of North Carolina, Chapel Hill, North Carolina*

The occurrence of the Black-vented Oriole, *Icterus wagleri*, in the United States.—On 27 September 1968 I noted a large black and yellow-orange oriole among the dense foliage on the Rio Grande Nature Trail at Rio Grande Village, Big Bend National Park, Brewster County, Texas. The bird foraged in view for about 3 minutes, and watching it from about 50–75 feet through 9× binoculars I was able to see clearly the black head, throat, and chest, the yellow-orange underparts, and black crissum and tail that identified it beyond doubt as *Icterus wagleri*. A search for the bird later the same day and the following morning proved fruitless.

On 28 April 1969 I saw an adult *I. wagleri* again less than 300 feet from the first sighting, and I watched it more than 40 minutes in close association with two Hooded Orioles (*I. cucullatus*) and four Orchard Orioles (*I. spurius*). Many visitors saw and photographed the bird during May and June. I succeeded in capturing, banding (No. 632-25253), and photographing (Figure 1) the bird on 4 July. Examination showed it

Figure 1. Crissum of *Icterus wagleri* caught at Rio Grande Village, Texas, showing diagnostic black under tail coverts.