

Behavior of birds on warm surfaces.—It is well known that certain parallelisms of posture and movement may occur in the sunning, bathing, dusting, and anting activities of birds. Recent evidence that the sensation of heat can be a common factor supports the view that these are not separate and distinct habits but a behavioral complex. With exact relationships and motivations yet to be determined, any activity in which elements of these behaviorisms are associated with heat should be of interest. See Conway (1959, *Wilson Bull.*, 71:188–189) and sources therein.

On July 15, 1957, at 1:05 p.m., I startled two adult Arkansas Kingbirds (*Tyrannus verticalis*) from a fallow flower bed at the University of Oklahoma Infirmary. One bird returned immediately and spread itself out flat, neck extended with bill nearly touching the sunny ground, the full-spread wings and flared tail pressed upon it. For a minute or two the bird remained motionless. Its ventral plumage was hidden from view, but I noted with interest that the dorsal plumage was not raised, not even the pileum. Soon the bird lifted its breast and, in a low squat, made two hurried preening strokes along the outer primaries of one wing, before resuming the spread-eagle pose. Banging of a door caused it to fly.

At once I examined the bed, marking the place used. The hard-baked earth bore no sign of mulch, manure, animal life, or of dust-bathing. Moments later, Mr. Ralph E. Reed, staff pharmacist, using a Nitrogen-filled Incubating Thermometer on that spot, obtained a reading of 60° C. (140° F.). Air temperature was 95° F. at the local weather station.

Fifteen minutes later and 60 yards distant, two kingbirds preened in full sunlight on the limb of a tree.

A related incident occurred on a concrete court, centered with a pedestal bath that was frequented by two grown but still dark-eyed Brown Thrashers (*Toxostoma rufum*). At 11:45 a.m., on July 28, 1959, I noticed one of these birds, alone on the court, behaving strangely.

The thrasher squatted, breast and tail on the concrete, wings slightly drooped, head and body feathers lifted. Incipient bathing? But the bath was unoccupied and the court entirely dry. Soon the bird began to run about in short spurts, rodent fashion, with belly close to the substrate, wings lax, contours fluffed. Between runs, it performed movements suggestive of low-intensity dusting or bathing, but did not duck the head. Whenever it paused, the ventral plumage obviously was so spread that the apteria must have been close to, if not touching, the concrete. Moving on a wide circle, the bird chanced into the shadow of the bathing bowl. Instantly it assumed sleek posture, looked about, then ran on out into the sunny area, where it just as automatically puffed itself up and resumed the run—"bathe"—run sequence. It had come nearly full circle when two House Sparrows (*Passer domesticus*) alighted on the court. The thrasher started toward them, now running normally, veered, and disappeared among some shrubs.

This bird, or its sibling, again was on the court 30 minutes later, behaving in the same manner. At no time during these events did the thrasher hold out its wings, though whenever it "bathed" their edges brushed the flooring, and the tail was spread. The court, clean-washed from the previous day's rain, was too hot for comfort, as tested with the palm of the hand, while the shadowed area was relatively cool. The weather was humid, with a reported temperature of 86° F. at 11:30 that morning.

Five days earlier, in bright sun at 9:30 a.m., an immature, hand-raised Blue Jay (*Cyanocitta cristata*), then free-living, flew to an iron clothesline post, expecting to be fed. It took food from my hand and, spreading the wings laterally on the cross-arm, almost instantly assumed the sunning position shown for the species by Hauser (1957.

Ibid., 69:86, Fig. 1). Thus it remained for nearly two minutes, food in bill, before departing. The metal was quite warm.

The role of strong light relative to warm surface is by no means clear in these cases, yet it seemed to me that kingbird, thrasher, and jay all were reacting mainly to the unusually warm surfaces. One wonders whether the behavior of immature Bank Swallows (*Riparia riparia*) that congregated by the thousands on pavement of a "6,000-car parking lot" in Michigan, during late hours of a July morning, may have been triggered by a high surface temperature, possible under the conditions stated (Crockett and Nickell, 1955. *Jack-Pine Warbler*, 33:86). These birds "appeared to be displaying incipient mating, nest building, and brooding behavior." Similarly suggestive is an account of immature "barn swallows" on Fire Island, N.Y., "at play" in early fall (Booth, 1932. *Nature Magazine*, 20:21-22). For about 30 minutes some 40 birds jostled to launch themselves down the face of a sand dune on their "stomachs," not flying but using wings "as if they were oars." Ascent was made by "flapping and pushing their wings in the sand in the funniest manner." Their odd tracks extended the height of the slope. Chill of weather and warmth of sand were seen as factors in this activity, in which "parent birds" took no part.—LOVIE M. WHITAKER, 1204 West Brooks Street, Norman, Oklahoma, January 18, 1960.

Bell's Vireo in New Jersey.—On September 15, 1959, during the Operation Recovery bird-banding program at Island Beach, New Jersey, Mr. and Mrs. Albert Schnitzer of Mountainside, N.J., trapped in a mist net a small, brown-eyed vireo unfamiliar to them. They brought the bird to banding headquarters where it was identified as a Bell's Vireo (*Vireo bellii*). Recognizing that the presence of this species in New Jersey had never been verified, I collected the bird with their approval. It was a female with skull not ossified; it weighed 10.2 grams; it was in little-fat condition; and the largest ovum was less than 1 mm. I have compared the specimen with reference material in the American Museum of Natural History collection and identified it as a representative of the Mid-western race *V. b. bellii*. Subspecific determination was confirmed by Eugene Eisenmann.

Although this species has been reported previously from New Jersey (Fables, 1955. *Ann. List of New Jersey Birds*, p. 75) and from the New York City region (Cruikshank, 1942. *Birds Around New York City*, *Amer. Mus. of Nat. Hist. Handbook Series* No. 13:364), both of these writers have rightly considered the species as "hypothetical," pointing out the possibility of confusion with immatures of *V. griseus*. I am unable to find any undoubted recent records for the east coast. Apparently the only other specimen from east of the Appalachians was taken by Ned Dearborn in Durham, New Hampshire, on the extraordinary date of November 11, 1897 (Brewster, 1901. *Auk*, 18:274).

I am indebted to the late Dr. F. C. Lincoln for making data on previous records available to me.—JOSEPH R. JEHL, JR., 385 Grove Street, Clifton, New Jersey, October 23, 1959.

American Coot successfully escapes from a Bald Eagle.—On March 20, 1955, I was overlooking a portion of the Mannington marshes northeast of the city of Salem, New Jersey. Almost 6 inches of snow had fallen during the night but the morning was clear. A mixed flock of ducks including Pintail, Baldpate, Black, Green-winged Teal and a few Mallard were feeding along the edge of open water extending from the road about 30 yards to the north where marshy vegetation began and continuing for another 50 yards to higher ground with a border of shrubbery and small trees. In the open water was a flock of about 50 Coots (*Fulica americana*). I had finished scanning the