

# The "dunking" habit of Common Grackles



## *Insight learning or innate behavior?*

Jerome Jackson



**P**ITOCHELLI (1985) recently reported detailed observations of Common Grackles (*Quiscalus quiscula*) that dipped bits of bread or crackers into water before eating them. While the observations and explanations are of interest, previous observations suggest that Pitocchelli's interpretation of novel insight learning should be modified.

The "dunking" behavior of Common Grackles described by Pitocchelli has fascinated observers in at least eight states and the District of Columbia and has been known since at least the 1930s. In New Jersey, Stone (1965:873) noted (in the 1930s) that: "Many Grackles in the town also learn to come to gardens where scraps of bread are thrown out for them and for some years I have seen the birds in July and August pick up bits of bread and deliberately fly up onto our bird bath and after soaking them for a few moments fly off with them to their young or eat them on the spot."

F.R. Smith (*in Bent* [1958:380]) observed a Common Grackle in Washington, D.C., pick up a hard crust of bread, carry it to a bird bath and drop it in, seem to defend it from a Rock Dove (*Columba livia*), then remove the bread from the water to eat it.

Rand (1967), too, thought that he had observed insight learning of dunking behavior in Indiana. He watched a marked (color or banded) grackle eat dry bread, then, after once "swallowing with difficulty," going to water for a drink, dropping some crumbs in, and then retrieving them. In the next hour, the grackle twice returned to drop bread in the water and

retrieve it, eating dry bread only once. Other grackles present ate crumbs left in the water, but were not observed dunking bread. In his report of the behavior, Rand queried: "Can it be that the habit of dunking bread, a fairly common, but irregularly used one of grackles, is a matter of learning by each individual?"

In detailed observations, Wible (1975) observed Common Grackles in Florida dunking bread, a mulberry, a cricket, fruit, and peanuts. She also observed grackles dunking bits of melon in a pool of melon juice accumulated in the rind.

Nicklas (1974) observed grackles in North Carolina dropping large pieces of bread in water and then eating pieces of it and defending the food from other grackles.

I have observed Common Grackles dunking bread and dried pastry in Iowa and Mississippi on several occasions. In addition to the references cited above, dunking by Common Grackles has also been reported by Gross (1958, no location given), Nimmo (1963, in Virginia), and apparently by Brewster (1937, in Maine).

Finally, this dunking behavior has been reported in two other members of the genus *Quiscalus* in North America. Pulich (1969) reported several observations of dunking behavior by Great-tailed Grackles (*Quiscalus mexicanus*) in Texas. This species dunked bread, dry dog food, insects, and table scraps. In Florida, Wible (1975) observed a Boat-tailed Grackle (*Quiscalus major*) dunk bread after it had observed Common Grackles doing so. In March 1985, I observed several male Boat-tailed Grackles in Semi-

nole County, Florida, as they took dry dog food from a feeding dish and flew 30 meters to the edge of a lake where they soaked it in water before eating it.

**T**HE THREE GRACKLE SPECIES in North America are all intimately associated with littoral environments, although often found away from them. Common Grackles often feed at the edge of, or in, shallow water (Bent 1958). Sprunt and Chamberlain (1970: 504-505) note that "Grackles are good fishermen and may often be seen wading about in search of crayfish, mollusks, and minnows." If the behavior is associated with the habit of feeding in or near shallow water, other species using such habitats might also use dunking behavior. Indeed, Schardien and Jackson (1982) observed Killdeer (*Charadrius vociferus*) taking small frogs captured on land to a pool of water and dunking them before eating them. In the case of the Killdeer, the behavior may have been to lessen an undesirable taste associated with the frogs' skin secretions, rather than to soften otherwise dry hard food.

The origin of the behavior may have indeed been insight learning somewhere in the species' ancestry, and the adaptive significance of the behavior is well stated by Pitocchelli. However, in view of their frequent feeding in shallow water and the widespread use of dunking for a variety of foods, it seems that dunking of bread is an extension of the normal, innate behavioral repertoire of the species — and perhaps the genus.

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- Department of Biological Sciences,  
Mississippi State University, Box Z  
Mississippi State, Mississippi 39762

