Notes

Common Grackle Anting with Moth Ball

David H. Elder

I live in Atikokan in northwestern Ontario In mid July of 2003, I received a phone call from a local lady inquiring about an unusual activity by a Common Grackle (Quiscalus quiscula) on the lawn of her yard. She had spread a number of moth balls (naphthalene crystals) along the edge of her flower gardens to keep house cats away. A grackle, one of several that were feeding on the lawn, had picked up a moth ball in its bill and then reclined slightly on its side with its uppermost wing partly raised, its tail spread and its side feathers fluffed up. In this position, the grackle had repeatedly rubbed the moth ball through and over the feathers of its underwing and flank feathers. This activity had continued for several minutes until the grackle suddenly dropped the moth ball, shook itself vigorously and walked away to join the other members of the feeding flock. Her question was "what was the bird doing?", of course. I told her the grackle had been "anting", a curious behaviour that has been recorded in many species of birds throughout most of the world, and went on to explain in a general way why it was done.

Discussion

As implied by its name, birds

engaged in this activity have usualobserved lv been using ants (Landsborough Thomson 1946, Pettingill 1970, Terres 1980). Anting occurs in two ways: "passive" anting, in which the bird simply sits or partly reclines on or beside an ant nest, raises its feathers, and lets ants move through and over them; and "active" anting. In the latter, an ant is caught, held in the bill, and directly applied to the feathers. The ant reacts to this disturbance by exud-



ing formic acid as a defense. Formic acid is quite pungent, and the bird may detect this by smell and/or taste. It is apparently this stimulus that causes the bird to begin anting. An ant may be wiped through the feathers several times until its formic acid is reduced. The ant is then dropped and replaced by a fresh one. The ants are seldom eaten during the process. Over 200 passerine bird species have been observed anting (Terres 1980), including Common Grackles (e.g., Smith and Tozer 2004). In addition, Whitaker (1957)summarized reports of 16 non-passerine species exhibiting the behaviour.

The purpose of anting is somewhat unclear. It has been suggested that the acid applied to the feathers may assist in feather maintenance by helping to rid the bird of unwanted and troublesome mites, lice and other ectoparasites that live on the feathers and skin. However, Potter (1970) found no positive evidence for this purported function in a

Literature Cited

- **Hill, R.W.** 1946. Bronzed Grackle "anting" with mothballs. Wilson Bulletin 58: 112.
- Landsborough Thomson, A. 1964. A New Dictionary of Birds. McGraw-Hill Book Company, New York.
- Pettingill, O.S. 1970. Ornithology in Laboratory and Field. Burgess Publishing Company, Minneapolis, Minnesota.
- Potter, E.F. 1970. Anting in wild birds, its frequency and probable purpose. Auk 87: 692–713.

review of the anting literature. A more widely accepted explanation is that the acid may sooth skin irritation associated with molt and the growth of new feathers. This hypothesis is supported by the observation of anting occurring most frequently during August in North America, when many bird species are replacing their feathers (Terres 1980).

The use of moth balls for "anting" has been noted numerous times (e.g., Hill 1946, Terres 1980, Whelan 1995). Moth balls are just one item in a long list of reported ant substitutes that includes beetles, the flesh of citrus fruits, cigarette butts, hot chocolate, soapsuds, and sumac berries (Terres 1980). Most of these are acidic to a degree, and have a pungent odour. It is believed that the detection of the acidity stimulates birds to use them in anting.

Acknowledgements

I appreciated Ron Tozer's comments on an earlier draft and his help with the literature.

- Smith, P.D. and R. Tozer. 2004. Anting by Common Grackles. Ontario Birds 22: 39–41.
- Terres, J.K. 1980. The Audubon Society Encyclopedia of North American Birds. Alfred A. Knopf, New York.
- Whelan, P. 1995. Battling parasitic aggression. The Globe and Mail, 22 July 1995.
- Whitaker, L.M. 1957. A résumé of anting, with particular reference to a captive Orchard Oriole. Wilson Bulletin 69: 195–262.

David H. Elder, 23 Birch Road, Box 252, Atikokan, Ontario P0T 1C0

Ring-billed Gulls Steal Food from Dunlin

David H. Elder

During the second week in May of 2002, I had the opportunity to observe an interesting behavioural interaction between Ring-billed Gulls (Larus delawarensis) and Dunlin (Calidris alpina) near Point Pelee National Park, Essex County, Ontario. On 12 May, a heavy rainstorm in the morning resulted in widespread flooding in the agricultural fields near the park. The flooded sections of the fields attracted numbers of migrating shorebirds of several species, immediately. The fields also attracted a large number of gulls that seemed to use them as loafing sites. In the days following the storm, the water slowly drained from the fields, shrinking the size of the pools and concentrating the birds in them.

On 15 May, while scanning the shorebirds and gulls in standing water covering the corner of a field adjacent to the road, I noticed Ring-billed Gulls repeatedly chasing Dunlin. At first, I thought the gulls were chasing the small shorebirds in an attempt to catch them, but further observation showed what was actually happening.

A large flock of Dunlin was actively feeding in the shallow water covering the corner of the field. Individuals probed rapidly as they walked about and were frequently rewarded with the capture of small earthworms (Lumbricidae) that had likely been forced near the surface of the soil by the floodwaters. On finding a worm, a Dunlin would stop walking and then attempt to manipulate the four to five-centimetre long worm into a position so it could be swallowed.

This pause by the Dunlin was the signal for a nearby Ring-billed Gull to launch itself at the shorebird. The Dunlin then took wing also, worm dangling from its bill, and tried to elude the gull by twist-



ing and turning. Invariably, after a short chase, the Dunlin dropped the worm, which was immediately snatched up and eaten by the gull. The Dunlin would then land and resume its search for another worm. The gull landed also, and waited for another chance for an easy bit of food. Neither species seemed overly concerned about what was happening, and several chases were ongoing at any given moment. The chases were seemingly ignored by other feeding Dunlin and loafing gulls.

Discussion

The Dunlin were taking advantage of a temporary feeding opportunity involving flooded-out earthworms of a size they could eat, and the loafing Ring-billed Gulls capitalized on the efforts of the Dunlin. The gulls simply stole food from the Dunlin. A couple of days later the flooded fields had dried out completely, the Dunlin had moved on, and the gulls were seeking out other food sources.

One species of bird stealing food from another is not uncom-

Literature Cited

- Clapp, R.B., D. Morgan-Jacobs, and R.C. Banks. 1983. Marine Birds of the Southeastern United States and Gulf of Mexico. Part III: Charadriiformes. United States Fish and Wildlife Service, Division of Biological Services, Washington, D.C.
- Payne, R.B. and H.F. Howe. 1976. Cleptoparasitism by gulls of migrating shorebirds. Wilson Bulletin 88: 349–351.

mon. I have watched Bald Eagles (*Haliaeetus leucocephalus*) steal fish caught by Ospreys (*Pandion haliaetus*), and once observed a Snowy Owl (*Bubo scandiacus*) take a freshly caught vole (*Microtus* sp.) from a Rough-legged Hawk (*Buteo lagopus*). Ring-billed Gulls have been noted pirating food from a variety of bird species, particularly ducks (Anatidae; Clapp et al. 1983, Ryder 1993).

In a situation similar to my observations, Payne and Howe (1976) reported Ring-billed Gulls stealing earthworms from Dunlin "in a plowed field recently flooded by rains" near Saginaw Bay, Michigan. Given the conditions, they concluded that the "worms were so easy for Dunlin to find and capture that it was not worthwhile to expend much energy fighting or fleeing gulls or to sacrifice feeding in optimal sites to avoid gulls".

Acknowledgements

I want to thank Ron Tozer for comments on an earlier draft and assistance with the literature.

Ryder, J.P. 1993. Ring-billed Gull (Larus delawarensis). In The Birds of North America, No. 33 (A. Poole, P. Stettenheim, and F. Gill, editors). Academy of Natural Sciences, Philadelphia, Pennsylvania, and American Ornithologists' Union, Washington, D.C.

David H. Elder, 23 Birch Road, Box 252, Atikokan, Ontario P0T 1C0