

**Sharp-tailed Grouse gives aggressive display to automobiles.**—Recently, while driving with my family on a busy four-lane divided highway I noticed a Sharp-tailed Grouse (*Pedioecetes phasianellus*) on the grassed dividing strip run briefly towards us with its head lowered and neck outstretched in an aggressive manner. All this happened in a matter of seconds, but it left a vivid impression because it seemed so improbable. Accordingly, as soon as we found a place to turn around, we drove back along the opposite side of the highway until we could see the grouse. We then drove slowly along on the shoulder of the road and parked about 50 feet from the grouse, which seemed to pay no attention to us. It was, however, still busily chasing passing cars. This was at 16:30 on 27 April 1969, on the Perimeter Highway close to Highway No. 59, southeast of Winnipeg, Manitoba. It was a bright day and we had an excellent view of the bird for the sun was behind us.

The grouse was making a pass at each approaching car, first turning to face it, then, when the car reached a certain distance, running towards it and suddenly veering as the car passed. Sometimes it ran briefly alongside the car before turning back, but in any case it usually ran in a curved path. It seemed to be threatening each approaching car then driving it off, so to speak, and the results presumably satisfied it for as each challenged car pulled away the grouse ceased to pursue it and either turned to the next car or stood still. Inasmuch as vehicles, both cars and trucks, were moving by in good numbers the grouse was kept fairly busy. In one five-minute period it made passes at 15 assorted vehicles that drove by at various speeds on both sides of the center strip. These dashes towards approaching cars varied in length from a few feet to about 20 feet and depended upon the position of the bird in respect to the car when the bird first began to make its run. When a car approached after a lapse in traffic the grouse was in a position to make a run of some length, but when cars were passing in rapid succession it sometimes lunged at first one car and then another with hardly a pause. All this while it kept within an interval of about 40 or 50 feet, shifting back and forth as traffic varied in either direction. It thus occupied a territory about 50 feet in length and 20 feet wide, the latter being the width of the grassed divider. It also, and this seemed reasonable, kept back about six inches from the edge of the curb on both sides.

During the 45 minutes that we watched this performance the grouse stopped chasing vehicles only twice. Its behavior then suggested that it had tired and was resting and indeed on one occasion it was lying down. Its rest periods were brief and in each case passing cars seemed to stimulate it to resume its peculiar game. On three or four occasions during traffic lulls it stood with wings held out sideways, head lowered, tail cocked, and then gave a few soft hoots—part of the typical display of a Sharp-tailed Grouse on its dancing ground. It also gave a few “chuckling” notes during these displays. I watched it closely with binoculars at these times and did not notice that it inflated its air sacs, but the display was clearly at a relatively low level. The eye-comb was pale yellow and appeared to be limited to a short strip anterior to the eye, rather than extending over the eye as expected. Presumably this was a subadult bird or one just coming into breeding condition.

Several times it paused briefly to feed. Later, upon inspecting the site I found a sparse strip of oats growing in the grass down the center of the area. The strip had been mowed at some time during the previous year and oat heads were scattered about on the ground. It seems reasonable to suppose that the grouse had been attracted by this source of food and had then responded aggressively to passing cars.

Evidence that the oats continued to prove attractive to grouse in the vicinity was obtained on 28 June when a female Sharp-tailed Grouse with oat kernels in its crop was found dead on the highway and close to the center strip in the same place that the male had occupied.

The reactions of Ruffed Grouse (*Bonasa umbellus*) to automobiles with running motors has attracted some attention (Bump et al, The Ruffed Grouse. New York State Cons. Dept., 1947, pp. 262-264) the sound of the motor being assumed to have some relation to the sound of grouse drumming, but I know of no similar reports for Sharp-tailed Grouse.

Our period of observation ended abruptly at 17:15 when a car stopped about 300 yards away on an adjacent roadway about 50 yards south of the highway and a man got out to walk a dog. The grouse at once flew off strongly to the southwest for almost a mile before we lost sight of it. On the following day and on several days thereafter a number of observers visited the area, but the grouse was not seen again on the center strip. At least three grouse were seen, however, on the access road to the south. When first sighted in the morning of 28 April these were displaying as if on a dancing ground. It is presumed that the bird that had chased the automobiles was one of these or at least a member of a group that was meeting close to the highway.—ROBERT W. NERO, *Manitoba Museum of Man and Nature, 190 Rupert Avenue, Winnipeg, Manitoba, 16 June 1969.*

**Ring-billed Gull and Laughing Gull catch fish by “ploughing” and “skimming.”**—On 27 April 1969 I was watching two Ring-billed Gulls (*Larus delawarensis*) catching fish (probably *Fundulus* sp.) along the edge of rising tide waters in a small estuary (Gulf Pond) in Milford, Connecticut. Both birds were feeding by the method called “ploughing” by Zusi (Wilson Bull., 80:491-492, 1968) in his report of observations of Greater Yellowlegs (*Totanus melanoleucus*). In ploughing the bird runs through shallow water with the lower mandible cutting the surface of the water, seizing any prey contacted. On 9 September and 21 September 1969 in the same locality I saw ploughing by small (6-9) groups of Laughing Gulls (*Larus atricilla*), accompanied on the 21st by similar numbers of Ring-bills. Again these birds were catching small fish near the water's edge. On several occasions a bout of ploughing appeared to have been stimulated by a Greater Yellowlegs ploughing the margin, with gulls then flying in from mudflats 20-40 meters away.

One of the Ring-bills on 27 April was also seen capturing a fish by “skimming.” This individual had been flying back and forth along the water's edge at a height of about 10 feet. It turned and dived suddenly, almost to the surface of the water. For a period of 2-4 seconds it skimmed over the surface, with the lower mandible cutting the water (exactly like a Black Skimmer (*Rhynchops nigra*)). While still in flight, the gull caught a small fish; it landed immediately and swallowed the fish. I saw this gull apparently skimming several times, but only once could I be sure that the prey was captured while the bird was in flight. On 9 and 21 September an approach to skimming was seen in Laughing Gulls, resembling the skimming described above, except that the birds made hopping or paddling motions with their feet touching the water; during each flight the lower mandible remained constantly immersed.