

# TOLERANCE OF SHORT-TERM DISTURBANCES BY SHARP-TAILED GROUSE

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Sharp-tailed Grouse dancing grounds in the Saskatoon area were surveyed in 1970-73 and 1988-90 for information on sites and their use. During 326 site visits, many instances were noticed of the birds' reactions to a variety of short-term distractions during their lek (dancing) activities. Though not central to the study, these incidental observations of behaviour were noted.

A characteristic of the Sharp-tailed Grouse is the lek gathering, a noisy event bringing male sharptails together for a least four hours each day during more than ten weeks in spring. The site, which may be used for years, is in the open on elevated terrain with short cover; the dancing ground is crowded with small territories and the birds are fully exposed. Yet when off the grounds, sharptails are solitary and secretive most of the time, living and nesting in or near margins around patches of buckbrush and aspen bluffs, where long grasses provide cover and food — this basic behaviour and corresponding habitat are the opposite to those assumed for the lek.

Typically, regardless of the cause of distraction, I found the grouse froze, then if flushed they dispersed over a broad area. They landed up to 200 m away on lower ground and in taller vegetation, and this tendency prevailed even on a "flat" field where

elevational differences were slight. That is, when fleeing they reverted to the basic behaviour. In effect, a short-term distraction shifted the balance between urge to congregate and display and urge to flee and disperse.

Usually, within five minutes after the disturbing element disappeared or became innocuous (e.g., a stopped car), the birds returned individually. After pausing briefly, they dashed to their territories and resumed dancing. An exception could occur when it was late in the morning, generally after 8:00 a.m., depending on the point in the season. Then the birds left in a flock, rather than dispersing, going farther before landing, and not returning. They were off to feed and rest.

The short-term distraction to which reactions were noted were due to other wildlife, cultivation, construction, weather and human interference. Except for three reports by others, the reactions described are those I witnessed when the birds were under the worst scenario conditions observed for each of these categories.

Grouse interaction with other birds at the grounds were seen only 16 times. The grouse flushed when a Great Horned Owl flew low over one site and when a Red-tailed Hawk



*Dancing male Sharp-tailed Grouse*

*Four Winds Prairie Photography*

flew low over another. Twice, overflying Long-billed Curlews caused the sharptails to freeze. Although they reacted to the curlews, they ignored godwits. One time when a Peregrine Falcon buzzed — but did not stoop — the birds did not flush, yet another time they did.

While undertaking research on Sharp-tailed Grouse, Wayne Pepper several times saw the birds flush when a female Northern Harrier flew over, but not when the smaller, light-coloured male went by (pers. comm.).

When I was driving toward a site, a Red-tailed Hawk flushed from the middle of the grounds, and in springing up, the hawk kicked or dropped an object. This turned out to be a still-warm, partly-torn sharp-tail carcass. No grouse were in sight but they returned as I withdrew. This was the only instance observed of appar-

ent avian predation of grouse on dancing grounds.

The only grouse-mammal interaction witnessed turned into a non-event. A coyote approached from the far side of the field, trotting toward the grouse site, but on reaching the grounds it veered, skirting the flock by 20 m. Neither coyote nor birds paused. Seemingly, the coyote was not hungry and the birds sensed it.

Cultivation of only the dancing site, as distinct from breaking up nesting and feeding habitat, does not appear to have a significant long-term effect. Many of the active grounds in the Saskatoon district are on cultivated land. The act of cultivation, however, can be a potential short-term distraction.

Unless there had been late fall cultivation, the soil surface was usually fairly smooth when dancing resumed





*Sharp-tailed Grouse*

*Lorne Scott*

in late winter, but could be exceedingly rough following spring tillage. Cultivation itself was not a deterrent, the birds withdrawing only while equipment was actually working across the site (two observations). With tillage, each bird's small territory became a miniature moonscape. The grouse seemed as active as ever, but with all the stomping and running, there must have been an extra energy drain, although the activity soon smoothed the surface. By chance, three sites were visited just before and after the land was worked on two grounds the number of birds was the same and on the third there were two more birds present on the second visit than during the first (movements of individual birds between grounds can occur daily).

One of the grounds found in an overgrazed pasture in 1989, when a dry spring followed a dry year, was revisited a week later. The sight then

was a shocker — the land had been broken, exposing the light sandy soil, which was drifting in the moderate breeze. The result was a ground blizzard of dust, yet 150 m into the field the birds were still dancing. Only the white tail flags could be seen, and sometimes even they disappeared in the swirling dust. In the head-down, hunkered posture of the dance, the birds' nostrils and eyes would be within eight cm of the surface, and conditions can be imagined.

The reappearance of Russian thistle during the drought of the late 1980's produced another distraction for grouse with dancing grounds on cultivated land. On one field, again on light sandy land which should never have been broken, the previous year's failed wheat crop still stood, and mixed with it was a heavy growth of Russian thistle. Tracking the previously unrecorded grounds was done entirely by sound since the



birds could not be seen. I walked to within 25 m, much closer than usual, before they saw me and flushed. Thistles were scattered through the grounds and bird droppings beneath tumbling weeds indicated that territories were being rearranged whenever the wind blew. As the typical site provides such a clear view all around, with resulting ease in spotting a predator, it was surprising that the birds had not moved into a pasture a mere 50 m away. This observation called into question my earlier view that safety was a dominant element in site choice.

When the highway near Tessier was under construction, road equipment cut away half a knoll and a third of the dancing grounds situated on it. During my visit, machines were moving nearby, yet grouse were present.

With caution, a car can be driven up to a grounds without the birds flushing. Once when leading a natural history field trip, I approached the site too fast and the birds flushed. Knowing they would come back I continued, but misjudged the distance in the dawn gloom and ended up with seven cars abreast across the middle of the grounds. When the birds returned and resumed activity, presumably where each had been before scattering, the result was: one danced behind a car, another performed between two vehicles, a third went beneath a car where he was heard stomping, and a fourth flew up onto a car hood and simulated a slide and glide routine.

Weather anomalies, of course, are potentially distracting, but my observations were confined to the effects of wind. Breezy days were avoided because pinpointing sharptails was done by listening. Yet, it was not uncommon at sunrises in spring for the

wind to rise, and if I was in the field at such times, I confined my attention to known sites. In strong gusty winds there were lengthy spells of inactivity by the birds and sporadic flushing occurred, but the sites were not deserted.

One farmer reported that he heard dancing sounds coming from a ground near his yard during a heavy snowfall. (How do sharp-tails cue in to the precise location when the land is covered with snow?) Vic Harper saw sharp-tails dancing in water after a quick thaw left small puddles on the still-frozen soil (pers. comm.). Since the dancing stage of lek activity involves rapid stomping while wings are extended and arched downward, water would be splashed up into the birds' faces and axillars (wing-pits). Aside from wind, weather appeared to have little influence on lek activity, although situations during blizzards and downpours may be different.

A person walking near a ground is another short-term distraction. Sharp-tails usually flushed when I walked within 50 to 150 m of them, but ordinarily returned following my retreat. It was unclear why one flock would tolerate a much closer approach than would another.

An acquaintance wishing to photograph grouse at dawn, went to the site in late evening and crawled into his sleeping bag for the night. He had misjudged his situation, as he found out when he was awakened before daybreak by grouse dancing on him.

The most extraordinary behaviour occurred on an April day, in the peak dancing period. The dancing ground was near the road, only 25 m into a pasture, and as the birds were in

sight, I approached slowly and stopped opposite them. Meanwhile, a bird flew out of the grounds, ran across the pasture, through the ditch and up onto the road to the car. He started pecking the hubcap. Some of the flock continued dancing, others froze in the erect alarm posture. I took a count and made notes, the pecking continued, then left for another site, returning in 20 minutes. A bird, presumably the same one, again came running toward the car. Both times he charged in the dancing threat: neck extended, head down, body horizontal, tail erect and wings

decurved. This is the same posture adopted by a male confronting another at their mutual territory boundary. Evidently the car was being challenged.

Collectively, these random observations show the considerable tolerance Sharp-tailed Grouse on their dancing grounds have for a variety of short-term disturbances, including apparently severe ones resulting from cultivation. They demonstrate how strong the attachment is for the lek site and indicate the set pattern the birds follow when reacting to disturbances.

## DO CROWS (C)AW IN CREE?

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In his article "Crows and their (c)awing" (*Blue Jay* 49:123-125), Victor Friesen cites a fascinating array of sources on the question of whether crows say *caw* or *aw*. There is an additional source that has a bearing on this question. It is a source very relevant to Saskatchewan crows and older than any other source cited by Friesen — the Saskatchewan Cree.

Many bird names in the Cree language are onomatopoeic, that is, they imitate the sound that the bird makes. (An example in English is the name "Chick-a-dee.") This is true for the Cree name for crow which is *Ha-ha-siw* or *A-ha-siw*. The "siw" ending of this word indicates "bird," and the name means roughly "the bird that says *ha-ha* or *a-ha*." This places the Cree clearly in the *aw* camp for crows, but interestingly enough, the Cree name for the raven, also onomatopoeic, is *Ka-ka-giw*. (I am not sure what the "giw" ending here signifies.)

Some other onomatopoeic bird names in Cree are *piskwa* and *kas-*

*kas-kus-kee-ka-chas*. I will not tell you what these are as it might be fun to try to guess them by the sound. The second one should not be too difficult for people who know the bird's song. Hint: the fourth syllable is raised in pitch and drawn out longer than the others and the fifth and sixth syllables fall rapidly from the fourth.

Some Cree bird names are descriptive of the bird's appearance or behaviour rather than the sound it makes. Two examples are, in English translation, "little raven" and "raven duck." Can you guess what birds these refer to? [See page 128 for the answers to these questions.]

This information is from my own experience with Cree speakers in northern Saskatchewan. Bird names, a lively part of the Cree language still spoken extensively in parts of the province, have not been collected in any one place that I know of, although some bird names do occur as entries in the various dictionaries of the Cree language.