

Details of a confrontation between two wild wolves

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A confrontation was photographed and videotaped at close range between a wild alpha male wolf (*Canis lupus*) of known history and an alien adult on Ellesmere Island, Northwest Territories, Canada. For 100–110 seconds the two stood near each other, maneuvered around, and snapped at each other until the alien fled. The alpha and his mate, who suddenly joined the encounter, chased the other wolf for 1.2 km and gave up without inflicting wounds. Discussed are possible reasons why this wolf was not killed, while other alien wolves have been.

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Une confrontation entre un Loup gris (*Canis lupus*) sauvage mâle alpha d'histoire connu et un adulte étranger en provenance de l'île Ellesmere, Territoires du Nord-Ouest, Canada, a pu être photographiée et enregistrée sur vidéo de très près. Durant 100–110 secondes, les deux loups sont restés près l'un de l'autre, se sont contournés et ont cherché à se mordre jusqu'à ce que le loup étranger prenne la fuite. Le loup alpha et sa partenaire, qui est apparue soudainement, ont chassé l'autre loup sur une distance de 1,2 km, puis ont cessé leur poursuite sans infliger de blessure. Les raisons susceptibles d'expliquer pourquoi ce loup étranger n'a pas été tué alors que d'autres loups étrangers l'ont été font l'objet d'une discussion.

[Traduit par la rédaction]

Introduction

Intraspecific strife among wolves, fatal and non-fatal, is well documented (Murie 1944; Mech 1966, 1977, 1994; Van Ballenberghe and Erickson 1973; Mahrenke 1971; Peterson 1977; Ballard et al. 1987). However, most reports of wolf intraspecific strife involve the finding of carcasses of wolves killed by wolves, tracks read in snow, or interactions observed at a great distance. Thus, no details are known about the behavioral aspects of threat, confrontation, and altercation between wild wolves.

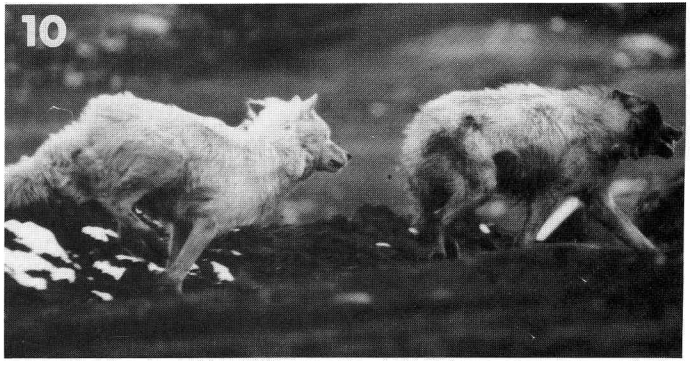
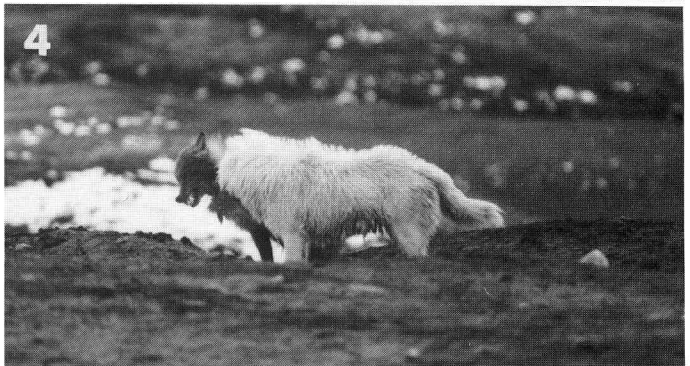
This report describes the details of a confrontation between two wild wolves that was observed, videotaped, and photographed from approximately 15 m away. It also raises the question of why some wolves are killed by aggressors and others are not. The observation was made between 14:30 and 14:32 on 4 August 1982 at a garbage landfill at Eureka, Northwest Territories, Canada (80° N latitude, 86° W longitude). The location was about 200–300 m inside what the author had identified as the eastern boundary of the alpha's summer 1992 territory based on their movements and scent marking (Peters and Mech 1975). The encounter was between a male wolf that had been habituated to the author's close presence (Mech 1988), and an unknown wolf more than 1 year of age. The author had not seen the alien wolf before so far as he could

tell. Identification of the alpha male was based on a distinctive head profile (Mech 1988; p. 53, lower photo), annual consistency in behavior toward the author at ≤ 3 m each summer from 1986 through 1992, consistent rank as alpha male during the summers of 1988 through 1992, and a consistent mate and denning area from 1990 through 1992.

The alpha male, an alpha female ("Whitey"), and three pups were denning 8.0 km from where the confrontation took place. The author had observed the two alphas chasing two alien wolves near the alphas' den on 17 July 1992, and a single alien near an adult musk-ox (*Ovibos moschatus*) kill on 23 July 1992. The chases lasted ≥ 2.0 km and ended out of sight. Based on lack of blood on the wolves when observed from ≤ 3 m immediately after those chases, the pursuits did not result in severe injuries to any of the participants. On 9 July 1991, both alphas and a subordinate companion (the mother of Whitey) had fatally attacked an alien wolf within 200 m of the scene of the present observation, and all three aggressors were blood stained. On 29 July 1992, Whitey apparently was involved in a confrontation with another wolf, for she sustained fresh puncture wounds immediately above and below her right eye, on the left side of her muzzle, and on her right front lower leg; her face was bloody from above her eyes but not from any apparent fresh wound of her own.

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FIG. 1. The alpha male walks toward the cowering alien wolf. FIG. 2. The alpha male stands with tail half raised about 0.3 m from the alien. FIG. 3. As the alpha male stands near the alien, the alpha male is alert and his entire mane is raised. FIG. 4. The two wolves stand near each other, and the alien maintains a defensive grin (Schenkel 1947) and snaps frequently at the alpha male. FIG. 5. After the two wolves jockey around each other, the alien sits and continues baring its teeth, while the alpha male maintains an alert posture with mouth closed. FIG. 6. The alpha male threatens after the alien snaps at him. FIG. 7. The alpha male faces the alien wolf again. FIG. 8. After more maneuvering, the alien tries to sneak away, but the alpha male immediately pursues and prepares to snap at its back. FIG. 9. The two wolves fight, each trying to bite the other's muzzle. FIG. 10. After 2 s of fighting, the alien runs off, and the alpha male pursues. The chase lasted 1.2 km, but apparently no wolf was wounded.



Observations

Immediately before the present observation, the alpha male, Whitey, and their three pups had just traveled from their den to the landfill. As they neared the landfill, the alpha male gradually increased his lead from about 50 to 300 m ahead of the female and pups. He moved slowly and alertly during the last 125 m, as he had done during several previous visits. My companion and I had accompanied the pack on all-terrain vehicles (ATVs) for 6.5 km as the wolves approached the landfill, remaining 10–200 m away.

As the alpha male approached the west side of the landfill, we saw an unknown adult-sized wolf about 20 m away from the male on the east side, and immediately stopped our ATVs. The unknown wolf was submitting with head pointed down and south, its mane up, and displaying a defensive grin (Schenkel 1947), having apparently already seen the alpha male. The alpha male walked calmly toward the other wolf (Fig. 1) and stood north of it about 0.3 m away and perpendicular to it for 5–10 s (Fig. 2). We began videotaping at this time. The mane and tail of the alpha were erect, but his tail curved downward below the horizontal; his teeth were not bared, and his ears were erect and forward-pointing (Figs. 2, 3). Any sounds uttered by the wolves were obscured by an ATV engine which one of us kept running to allow the immediate following of any chase that might develop.

The alien wolf's behavior was characterized by a defensive grin (Fig. 4) and frequent snapping toward the alpha male, as well as by a submissive posture, including tail between legs. The alpha male frequently flinched at the other wolf's snaps but generally did not bare his teeth or snap until the alien turned away. After about 15 s, the alien was crouching so low that it was sitting. Nevertheless, it continued snapping and grinning defensively while the alpha male maintained a stiff, but not obviously threatening, posture (Fig. 5).

Both wolves remained side-by-side facing north for 9 s (Figs. 3, 4), and then the alpha male suddenly swung around to the right and faced south, apparently after a lunge at his right flank by the alien wolf. The alpha male stood facing south with head turned about 45° to his left and tail held stiffly but curved downward while the other wolf sat with a defensive grin facing the alpha's left flank.

After 25 s, the alpha male swung quickly around to his left toward the alien wolf and faced it (Fig. 5), and 20 s later the alien swung its head to the north and with body low started slinking slowly toward the north for 1–2 m. After about 2 s the alien stopped and faced the alpha who had begun to follow. About 2 s later the alien again slunk off, and instantly the alpha followed and snapped at the alien's left flank. The alien immediately snapped back, and the alpha snapped again, stopped, and faced the alien who then stopped, snapped at the alpha's head (Fig. 6), and then pulled its head back. Both stood facing west.

Ten seconds later the alpha male again faced the half-crouched alien (Fig. 7), and within 4 s the alien again started guardedly slinking away to the north with the alpha following (Fig. 8). Within 3 s the alpha rushed forward and lunged at the alien's left flank. The alien swung around, snapped defensively at the alpha, and went down on the ground for an instant as the alpha snapped back from above. The alien arose in < 1 s and lunged back at the alpha (Fig. 9). They then swirled around each other for about 2 s. Suddenly Whitey, who had been approaching with the pups from behind us before the encounter began some 100 s earlier, ran past us just as the alien wolf began to flee.

Whether Whitey's appearance caused the fight to turn into a retreat or merely coincided with it is unknown. The alien ran off with the alpha male directly behind (Fig. 10).

The alpha male then chased the alien wolf south across the top, and then over the south edge, of the landfill and southeastward through a wide valley and then a ravine and out of sight. Whitey followed about 50 m behind the male, and all disappeared. The pups remained about 40 m north of the landfill. Fifteen minutes later Whitey reappeared and returned to her pups, and the alpha male followed about 3 min later.

Tracks in mud showed that the chase covered 1.2 km and that one wolf had continued the pursuit ≥ 150 m farther than the other before giving it up. Whether there was ever a second confrontation, fight, or attack is unknown. No blood was found along the tracks, and neither of the pursuing wolves had blood or fresh wounds when they returned. The tracks showed that the alien wolf walked away after its pursuers gave up the encounter.

Discussion

The identity of the attacked wolf was unknown. However, it is unlikely that the individual could have been any of the pair's one 1990 or two 1991 offspring because none of these individuals was ever seen after November 1990 or August 1991, respectively, even though the two adults were seen frequently after these dates by government personnel in the area. Therefore, they apparently did not survive into their first winter. Neither was the attacked wolf the pair's single companion of 1990 and 1991, who had not been seen since autumn 1991, because the canines of that wolf were well worn whereas the alien wolf had long sharp canines.

This alpha pair produced four pups in 1988 and four in 1989, and all had remained with them through late October 1989, and at least four of those offspring had survived at least through mid-December 1989. None was seen with the pair in June 1990 or thereafter, however. Nevertheless, some of those offspring could have remained in the area and survived apart from the alpha pair as has been found with radio-tagged wolves in Minnesota (L.D. Mech, unpublished). If so, the animal attacked by the alpha male could have been a previous offspring, and that might explain why it was chased off rather than killed. On the other hand, the alien may have survived merely because it successfully defended itself.

This observation involved behavior similar to the "ritualized fighting" (Schenkel 1947) described in detail by Moran et al. (1981) for interactions between dyads of a captive wolf group comprised of related and nonrelated individuals. In fact, my Fig. 9 and Moran et al.'s (1981) Frame 385, Fig. 6, appear to be identical. However, my observation differed from those of Moran et al. (1981) in that my alpha male's tail was held lower (generally below the horizontal), the alien showed much more defensive grinning and snapping than did Moran et al.'s (1981) displaced individuals, and my alpha male tried more to actually bite the back of the alien. Perhaps the differences were related to the fact that my observation appeared to be a territorial dispute among wolves that were strangers, or at least less familiar with each other, whereas the observations of Moran et al. (1981) involved individuals living with each other.

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