

geese and noticed two loons on the open water approximately 400 m from the dike. When the geese had swum about 200 m, they stopped. At this time I saw the loons swimming slowly toward the geese. When within 200 m of the geese, one loon dove underwater and soon surfaced some 20 m from them. Before this loon surfaced, the adult geese charged toward the spot, running along the water flapping their wings, and the goslings scattered. The loon that surfaced nearby submerged immediately. The adult geese rose high in the water, wings outstretched, and with their heads and necks bent as though looking into the water. They then moved some 20 m in a different direction to where I could see the loon's head above the water. As the geese rushed toward the loon, it submerged. This sequence of events was repeated twice more, after which the loon surfaced about 100 m away. At this time the second loon was swimming some 150 m away toward a patch of floating sedge mats, and through a 30× scope I saw it held a motionless gosling in its bill. The two loons disappeared behind a floating sedge mat before I learned the gosling's fate. The pair of geese and the two remaining goslings reunited immediately and swam to the nearest sedge mat where they climbed out of the water.

On 12 June 1974 I watched a pair of geese with six 4-week-old goslings avoid a loon. In this case, the family swam from a dike to the open water as I approached. A single loon some 100 m away swam towards the geese. When about 20 m away the loon submerged. The adult geese immediately rushed the brood to a sedge mat 10 m away and scrambled out. Apparently the adult geese were more concerned with my presence while the loon was on the surface but immediately shifted their attention and reacted to the loon when it submerged.

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**Close proximity of Red-tailed Hawk and Great Horned Owl nests.**—In the course of banding nestlings in 892 nests of the Great Horned Owl (*Bubo virginianus*) in Saskatchewan, I have been impressed by the close interrelationships of this species with the Red-tailed Hawk (*Buteo jamaicensis*). In the "aspen-parkland" regions they are complementary species: the Great Horned Owl is the major nocturnal raptor and usually uses old nests of the Red-tailed Hawk, the major diurnal raptor. They prey on the same species, except that the owls take few of the diurnal ground squirrels, *Spermophilus*, and the hawks take few of the nocturnal pocket gophers, *Thomomys*.

In Saskatchewan, interspecific conflict is not always sufficient to cause the wide separation of active nests of the two species that has been reported elsewhere by Craighead and Craighead (1956: 209), Hagar (1957), Luttitch et al. (1971), and Seidensticker and Reynolds (1971). In Alberta, Luttitch et al. found that "the minimum interspecific distance between nesting pairs was 350–700 yards." Smith (1970) reported these two species nesting only 21 m apart in a cliff in Utah, but both deserted. Freemyer and Freemyer (1970) found a Great Horned Owl nesting only 30 yards from another buteo, the Harris' Hawk (*Parabuteo unicinctus*) in Texas, but did not indicate whether either species was successful.

In good habitat in Saskatchewan, we often have Great Horned Owls and Red-tailed Hawks nesting in the same quarter-section (160 acres), and it is not infre-

TABLE 1  
RED-TAILED HAWK-GREAT HORNED OWL PROXIMITY

Latilong coordinates <sup>1</sup>	Date	Great Horned Owl			Distance owl-hawk (yards)	Red-tailed Hawk
		No. young	Height (feet)	Tree		Tree, outcome
514-1052	17 May 1969	3	27	Aspen	60	Aspen, deserted soon after
510-1050	10 May 1970	2	34	Aspen	38	Aspen, deserted soon after
520-1063	14 May 1970	2	32	Aspen	35	36 feet in aspen. One hawk banded 22 June
524-1051	14 May 1972	3	38	Balsam poplar	48	Balsam poplar, deserted later
525-1052	18 May 1974	1	30	Aspen	72	27 feet in aspen. One hawk 25 June
514-1040	19 May 1974	2	39	Balsam poplar	55	Balsam poplar, deserted later

<sup>1</sup> 514-1052 is a 10-degree block, from 51° 40' N and 105° 30' W.

quent to have them sharing, often at opposite ends, the same 40-acre clump of aspen. This is not simply an "island effect," for other potential nesting sites are available in adjacent aspen clumps. The approximate paced distances for the six most proximate nests of these two species in my experience are given in Table 1. In five cases, the owl had expropriated a Red-tailed Hawk nest of the previous year, whereas in case 4 the hawk nest was 1 year older and was being used by the owls for a second year. In at least four, but perhaps in all six instances, the hawk built its new nest nearby after the owl had begun incubating.

All six owl nests but only two of the six hawk nests appeared to be successful (young well feathered and soon ready to fledge). As the hawks were incubating in mid-May, our owl-banding visit may have been the precipitating cause of desertion, even though we did not climb any of the hawk nests at that time. In our experience, 20 min spent near a buteo nest during incubation, especially if a nearby tree is climbed, seems sufficient to cause desertion of about half the nests. Only once have we encountered an adult Red-tailed Hawk as a prey item in a Great Horned Owl nest.

In 1973 we encountered for the first time a similar short distance between nests of two species of buteos. In an aspen bluff of less than an acre, in otherwise open country near Dodsland (514-1085), a Ferruginous Hawk (*Buteo regalis*) raised three young (banded June 22), while a Swainson's Hawk (*Buteo swainsoni*) only 48 yards away raised three young (banded July 22). In 1974, the Ferruginous Hawk reused its nest while the Swainson's Hawk moved to a tiny clump of young aspen about 150 yards distant.

Evidently, under certain circumstances in aspen-parkland farm habitat, the Red-tailed Hawk and Great Horned Owl may occupy nests as close as 35 yards, with the owl having normal success and the hawk occasional success.

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**Egg-carrying by a Common Flicker.**—From 3 May through 19 May 1973 I was studying the nesting behavior of a pair of Red-shafted Flickers (*Colaptes auratus cafer*) near Fort Collins, Colorado. On the morning of 15 May, while trying to enlarge the entrance of the nest, which was in a fairly rotted cottonwood tree about 18 feet off the ground, I accidentally dropped a saw blade into the cavity. Being unable to reach it, I left the blade in the nest for about 2½ h, during which time it appeared the flickers were going to desert their nest as both the male and the female visited it frequently but would not stay. At 1300, 2 min after I had finally removed the blade, the male returned to the nest, entered, came out with an egg in his beak, and flew with it 30 yards to the north. This was not observed with binoculars so I cannot verify whether it was a whole egg or a large piece of egg shell. I followed him part way to the stand of dead cottonwoods to which he flew and found him with the female, his beak empty. Soon he returned to the nest and I got into position, about 18 yards away, to watch more closely with 7 × 35 binoculars. He peered out of the cavity holding what I could clearly see was a whole egg, crosswise in his beak. This time he flew to the west, but 6 yards from the nest he dropped the egg and immediately landed on a nearby log where he sat for 30 sec and then returned to the nest. The same thing occurred again with another whole egg, which was dropped in about the same place. He then flew off to some nearby trees. At 1700 I found the female back in the nest, and I located one of the dropped eggs, which was broken open and appeared to be fresh. I could find no second nest in the area where the first egg could possibly have been taken.

At 1400 on 18 May I cut a small hole below the entrance at the bottom of the same nest, counted three eggs, and then wedged the bark back into place