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A group of young Peregrine Falcons prey on migrating bats.—Although Peregrine Falcons (*Falco peregrinus*) hunt primarily avian prey, they have been known to kill and eat bats when the opportunity arises (e.g., Stager 1941, Sprunt 1951, Sick 1961, Baker 1962, Albuquerque 1978, Pierson and Donahue 1983, Sherrod 1983:59, Palmer 1988). Most observations have been made in southern regions, chiefly in the southern hemisphere, and usually involve Peregrines taking advantage of easily obtainable prey where large concentrations of bats gather at dawn and dusk. Few detailed observations of Peregrine bat-hunting behavior have been published however, especially for Peregrines in the northern United States.

On the mornings of 30 August, 2 September and 10 September 1989, five juvenile Peregrine Falcons which had been recently released from a hacking tower near Lake Michigan in northeastern Illinois, were observed preying upon three species of migrating bats (silver-haired, *Lasionycteris noctivagans*; big brown, *Eptesicus fuscus*; and red, *Lasiurus borealis*). The falcons, observed daily from dawn until dark during the entire summer and fall, killed many bats on all three mornings when the bats, migrating across Lake Michigan, did not reach the cover of the Illinois shoreline before daybreak. Twenty-eight kills were seen over the three days, and indirect evidence of at least 15 more kills was found. Skies were clear to partly cloudy with gentle north-northeast winds (2–9 km/h) on all three days, and temperatures were mild (21°–25°C). Most kills took place between 06:00 and 10:30 CST.

The falcons were still learning to hunt and had made their first kills only two weeks or so previously (large insects and small passerines). When hunting for bats, the falcons scanned the horizon over the lake while perched on boulders, cement breakwaters, dead trees, or tall utility poles. The falcons were usually within 10–30 m of the water's edge, and at intervals of 2–100 m from each other. Bats migrated in a south-southwest direction across Lake Michigan, and during peak arrival times appeared at a rate of approximately 1/min. They usually flew 10–30 m above the water's surface, and arrived singly or in groups of only two to four at a time rather than in dense flocks. Their irregular flight and distinctive fluttery wingbeat made them easy to distinguish against the horizon. Kills usually took place as follows. One or more falcons would fly out over the water in fast, direct flight to intercept an approaching bat. Most bats were intercepted 50–100 m from shore, although some were caught much farther away and some were not caught until they reached land. The first falcon to fly out after a bat was followed immediately by two to four of the others, and all would quickly but silently converge on the prey. Upon reaching the prey, the falcons became vocal, emitting playful screams (Sherrod 1983:189) as they extended their talons and began an erratic attack, diving and swooping at the bat. They did not stoop at the bat from great

heights, but rather tried to follow it closely, making shallow dives and braking with their wings, while grabbing at the bat whenever possible, and from every conceivable angle, sometimes almost colliding with one another in the process. The bat invariably began a series of evasive actions as it tried to avoid capture. Within 15–35 sec, or in approximately four to eight attempts, one of the falcons usually succeeded in capturing the bat with its talons. The falcon would then fly directly back to a perch to eat the bat, often pursued by two or three of the other, now very vocal young falcons, which emitted food-begging screams (Sherrod 1983:185) as they followed. At no time did any of the falcons attempt to eat their catch while still on the wing, although they did, on several occasions, deliver a single bite to the bat right after catching it. After landing on a perch the falcon would either eat the bat in its entirety in four or five large chunks, or it would eat the meat and membranes only, delicately biting off small pieces and leaving a nearly intact skeleton behind.

Most of the kills observed involved at least two, and usually three or more falcons pursuing and surrounding a single bat, even when there were several other bats flying nearby, as was usually the case. This behavior, while social in nature, probably should not be viewed as cooperative hunting, but rather as the "close-focused," hit-or-miss behavior that might be expected in a group of young, inexperienced Peregrine Falcons still developing their hunting skills (Sherrod 1983:49–63).

Falcons were twice observed forcing bats down into the lake and subsequently, after several attempts, plucking them up from the surface (once close to shore in 5 cm of water, and once approximately 50 m off-shore, where the water was approximately 5 m deep). On another occasion, a falcon pursued a bat shoreward and then followed the bat in an "Accipiter-like" manner, into a dense stand of cottonwood trees (*Populus deltoides*). The outcome could not be seen.

Bats that reached land quickly dropped into any available cover, or even onto bare ground, where they remained completely motionless (even allowing humans to pick them up). The falcons were never seen picking up a bat that had dropped to the ground; they usually gave up the chase immediately in such cases, without trying to flush the prey back into flight, and returned to the beach to renew the hunt. The selective nature of the hunt was obvious. During periods when bats were arriving, a time span of about four hours on each of the three days, the falcons focused their attention almost exclusively on searching for bats. Even a time lag of 15–20 min between bat sightings did not cause the falcons to pursue the many other types of prey which were in the immediate vicinity. Only after 30–40 min of unproductive waiting would the falcons begin to hunt elsewhere or for other prey.

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