

University of Nebraska - Lincoln

DigitalCommons@University of Nebraska - Lincoln

2002 Bird Strike Committee-USA/Canada, 4th
Annual Meeting, Sacramento, CA

Bird Strike Committee Proceedings

October 2002

Efficacy of Translocation of Red-tailed Hawks from Airports

Laurence M. Schafer

USDA, Wildlife Services, AMC Building, Room 241, P.O. Box 66142, Chicago, IL

John L. Cummings

USDA, National Wildlife Research Center

John A. Yunger

Environmental Biology Program, Governors State University, University Park, IL

Kirk E. Gustad

USDA, Wildlife Services

Follow this and additional works at: <http://digitalcommons.unl.edu/birdstrike2002>



Part of the [Environmental Health and Protection Commons](#)

Schafer, Laurence M.; Cummings, John L.; Yunger, John A.; and Gustad, Kirk E., "Efficacy of Translocation of Red-tailed Hawks from Airports" (2002). *2002 Bird Strike Committee-USA/Canada, 4th Annual Meeting, Sacramento, CA*. 38.

<http://digitalcommons.unl.edu/birdstrike2002/38>

This Article is brought to you for free and open access by the Bird Strike Committee Proceedings at DigitalCommons@University of Nebraska - Lincoln. It has been accepted for inclusion in 2002 Bird Strike Committee-USA/Canada, 4th Annual Meeting, Sacramento, CA by an authorized administrator of DigitalCommons@University of Nebraska - Lincoln.

Efficacy of Translocation of Red-tailed Hawks from Airports

Laurence M. Schafer, USDA, Wildlife Services, AMC Building, Room 241, P.O. Box 66142, Chicago, IL 60666 USA

John L. Cummings, USDA, National Wildlife Research Center, 4101 LaPorte Ave., Ft Collins, CO 80521 USA

John A. Yunger, Environmental Biology Program, Governors State University, University Park, IL 60466 USA

Kirk E. Gustad, USDA, Wildlife Services, 2869 Via Verde Drive, Springfield, IL 62703-4325 USA

Raptor translocation from airport environments is a management strategy that has been recommended and used in attempts to reduce aircraft strikes. However, supportive data are lacking about optimal translocation distance and direction, return rate, post-translocation fate and overall efficacy of the technique. We conducted a study from 1 December 1999 to 28 February 2002, which included satellite telemetry, to address these issues of raptor translocation at a Midwest Airport. Two hundred and fourteen red-tailed hawks (*Buteo jamaicensis*) were translocated to 12 sites in Illinois, between 59 and 242 km from the airport. Thirty-four after-hatch-year (AHY) individuals were fitted with satellite (PTT, $n = 22$) or VHF ($n = 12$) transmitters. As of 31 October 2001, 34 (15.9%) of the 214 red-tailed hawks returned to the airport. We compared the return rate among age class, period of translocation (i.e., breeding, fall and spring migrations, and over wintering), direction of translocation, and translocation distance. Only 3.2% (3 of 93) of hatch-year (HY) individuals returned, whereas 25.6% (31 of 121) of AHY birds returned ($P < 0.001$). HY red-tailed hawks were also easiest to capture and least likely to return. No differences among the other factors were identified. The mean number of days to return was 108.6, range 2-369. Satellite data indicated that 19 of the 22 (86.3%) PTT-fitted birds dispersed from the release site within 5 days, suggesting that translocation did not result in an over-saturation of individuals at the release sites. Use of airport habitats by PTT-fitted birds was significantly different ($P = 0.009$). However, this was probably due to a single individual being relocated on airports 43 of 125 times (34.4%). Excluding this individual eliminated statistical significance ($P = 0.576$). Although PTT-fitted birds used airport habitats greater than expected, average use was extremely low, <2%.