J. Field Ornithol., 65(4):458–460

RISKS OF USING ALPHA-CHLORALOSE TO CAPTURE CROWS

DONALD F. CACCAMISE
Department of Entomology
Cook College
Rutgers University
New Brunswick, New Jersey 08903 USA

PHILIP C. STOUFFER
Department of Biological Sciences
Southeastern Louisiana University
Hammond, Louisiana 70402-0814 USA

Abstract.—In response to McGowan and Caffrey, it is suggested that all methods of capturing birds involve some risk, and minimizing the adverse effects of the use of alpha-chloralose was a primary consideration. The protocol that was finally developed greatly reduced the dangers associated with this technique.

RIEZGO DE UTILIZAR ALFA-CLORALOSA PARA CAPTURAR CUERVOS

Sinopsis.—En su respuesta a la crítica de McGowan y Caffrey, los autores indican que todos los métodos de captura de aves envuelven algún riezgo y que dedicaron gran parte de su trabajo para describir la forma de minimizar los efectos adversos del uso de alfa-cloralosa. Éstos creen que el protocolo que finalmente desarrollaron reduce gran parte de los peligros asociados con su técnica.

All methods for capturing birds have associated risks. In selecting a capture technique each researcher must weigh the relative danger to the birds versus potential gains in understanding anticipated from the research results. We published our method for capturing American Crows (*Corvus brachyrhynchos*) with alpha-chloralose to share with other researchers our experiences with a technique that worked well for us (Stouffer and Caccamise 1991a). We did not present this approach as a foolproof capture technique, but rather we made a considerable effort to point out the difficulties we discovered as well as approaches to minimize or avoid these where practical. We believed it was more important to present a realistic description of our experiences, thereby allowing each researcher to decide if the inherent risks in this particular method were acceptable, in terms of potential impact on both their research goals and the subjects of the investigation.

McGowan and Caffrey (1994) suggest that our technique may be dangerous for birds. We agree; this is why we devoted so much of our paper to describing how to minimize the dangers. Even to the casual observer, losing two of 15 birds within 2 d of capture suggests an accelerated mortality rate likely related to capture and handling. It would be most unfortunate, however, to discourage other investigators from using this technique because our mortality rates were high. After all, when we lost those two birds (not three, see below) we were in the process of developing a

new protocol. We believe the protocol we finally developed and recommend in our paper reduces the dangers associated with this technique and should result in lower mortality rates than those we experienced in the development phase of our work. The bulk of McGowan and Caffrey's comments simply reiterated the same precautions that we suggested in our original paper.

Several of McGowan and Caffrey's comments on mortality of crows after drugging require comment because they do not accurately describe the behavior that we observed in our research. First, the crow of whose fate we were uncertain when we wrote our paper (McGowan and Caffrey refer to ". . . the loss of three crows . . .") was later found at a landfill 8 km from the capture site. Use of landfills without fidelity to the area where they were captured was a typical pattern of "vagrant crows" in our study area (Stouffer and Caccamise 1991b). Thus, McGowan and Caffrey's use of the terms "disappearance" and "loss" in the first paragraph of their comments should not be construed as synonyms for "mortality," nor should this behavior be interpreted as being a consequence of the capture technique. Second, we indicated that mortality of two crows shortly after release was probably a result of some combination of the drugging, handling trauma and distraction due to the radios we attached. McGowan and Caffrey suggest that we under emphasized the possible role of the drugging (paragraph 4 of their comments), which was not our intent. As we noted, our research with other species caught with other techniques has consistently shown birds to be distracted and preoccupied with their radios in the first few days after release. This is not a function of transmitter package size, nor is it analogous to the response to other kinds of bands and tags, as McGowan and Caffrey suggest. Incomplete recovery from drugging certainly may have contributed to mortality of these birds, but without additional research neither we, nor McGowan and Caffrey, are in a position to be more specific about its role.

We stand by the recommendations we made in the original paper. We believe that the precautions we suggested minimize the risks to the birds to levels below those we experienced when we developed our technique. We disagree with McGowan and Caffrey's advice to use finely chopped hard-boiled egg to deliver bait. Crows often carry away solid baits that they consume elsewhere or cache, presumably for later use. Any baits carried away from the bait station would no longer be under the control of the researcher and could pose dangers to the test subjects as well as non-target species. The opened, raw eggs we suggest cannot be easily carried away or cached for later use by the crows.

Using alpha-chloralose enabled us to accomplish our research objectives in a manner consistent with AOU guidelines for use of wild birds (Oring et al. 1988). Obviously, it is a technique that requires great caution. Future comments on its application should probably be made by those that have conducted more extensive field and laboratory tests on its effects. Researchers working with crows would be well served by a review of alternative capture techniques that have proven successful.

ACKNOWLEDGMENTS

This is New Jersey Agricultural Experiment Station publication D-08132-xx-94, supported by state funds and the U.S. Hatch Act.

LITERATURE CITED

McGowan, K. J., and C. Caffrey. 1994. Does drugging crows for capture cause abnormally high mortality? J. Field Ornithol. 65:453–457.

Oring, L. W., K. P. Able, D. W. Anderson, L. F. Baptista, J. C. Barlow, A. S. Gaunt, F. B. Gill, and J. C. Wingfield. 1988. Guidelines for use of wild birds in research. Auk 105, supplement 1.

Stouffer, P. C., and D. F. Caccamise. 1991a. Capturing American Crows using alpha-chloralose. J. Field Ornithol. 62:450–453.

Stouffer, P. C., and D. F. Caccamise. 1991b. Roosting and diurnal movements of radio-tagged American Crows. Wilson Bull. 103:387–400.

Received 20 Dec. 1993; accepted 20 Dec. 1993.