

1532 University Ave.
May 11, 1937

Mr. T. D. Peffley
P. O. Box 891
Dayton, Ohio

Dear Mr. Peffley:

I am intensely interested in your situation, because the scientific idea of predation, if it can be "sold" to sportsmen at all, should be salable to the I.W.L.A. I say this as a sportsman and as a long-time member.

The information you ask for is voluminous, and much of it I have only in the form of library copies which I cannot send you. Hence I am sending you only some samples.

I will, however, attempt to give you a comprehensive summary of why we game managers think that "vermin campaigns" are ordinarily not only useless, but actually harmful to conservation.

Reasons for Doubt

1. We seldom find any considerable numbers of game birds in the pellets, nests, or stomachs of hawks and owls, nor of other "vermin." There is a vast array of data. As a sample see Errington and Breckenridge: "Food Habits of Marsh Hawks in the North-Central United States," American Midland Naturalist, Vol. 7, No. 5, September, 1936, pp. 831-848.

2. When we do find evidence of material predation, it is (a) where birds have expanded beyond the carrying capacity of the food and cover, or (b) where they have been left unfed during a blizzard, or (c) where half-tame artificial stock has been turned loose, or (d) when goshawks have come down out of Canada in winter. For point 2a, see Errington and Hamerstrom: "The Northern Bob-white's Winter Territory," Research Bulletin 201, Agricultural Experiment Station, Iowa State College, Ames, p. 417.

3. We constantly find evidence that hawks and owls eat great numbers of the mice, gophers, and rabbits which (a) compete with the birds for food, which (b) destroy more bird-cover than anybody realizes, and (c) some of which (gophers) eat eggs and chicks. I do not have extras of the documents detailing these three points, but you will find (a) in Stoddard's "The Bobwhite Quail" (Scribner's), (b) in Hilbert R. Siegler's "Winter Rodent Damage to Game Cover," Journal of Mammalogy, February, 1937, pp. 57-61, and (c) in David Gorsuch's "Life History of the Gambel Quail in Arizona," University of Arizona Bulletin Vol. V, No. 4, May 15, 1934.

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4. In so far as we have measured predation losses, we find no differences between areas or years where abundant, or areas or years where scarce. Example: See Errington's "Bobwhite Winter Survival in an Area Heavily Populated with Grey Foxes," Iowa State College Jour. Science, Vol. VIII, No. 1, 1933, pp. 127-130.

5. We have obtained satisfactory increases of pheasants and quail by food and cover improvement alone, without any "vermin control." For example, see Riley Area in "The University and Conservation of Wisconsin Wildlife," by Leopold et al, Table 2, p. 32.

6. Even defenseless half-tame stock, both fish and game, can sometimes be safeguarded by means other than shooting. See McAtee's "Excluding Birds from Reservoirs and Fishponds." I have no extras, but you can easily get one by asking the U. S. Biological Survey, Washington, for Leaflet 120.

7. Where effective predators have been eliminated, there is often serious injury to game mammals, and to their range, through overbrowsing and malnutrition. For example, see the literature on German deer (Leopold: "Deer and Damerwald in Germany," enclosed), on Pennsylvania deer (Gerstell: many papers in the Pennsylvania Game News), on Kaibab deer (many papers by Goldman, Locke, Hall, Rasmussen, and others).

It should be noted, though, that overstocking by game birds does not injure the range as far as we know.

8. Conversely, where effective predators remain in natural abundance, we often have abundant game mammals without any of the troubles due to irruptions or overbrowsing. See Leopold, "Conservationist in Mexico," marked copy enclosed.

9. Some species of hawks and owls (duck hawk) and some of the larger carnivores (cougar, wold, wolverine) are in as great danger of local extermination as game is. I have no extras of the documents, but will be glad to detail them if you care to look them up.

Personal Convictions

All of the foregoing propositions are supportable by physical evidence. It should be admitted, though, that the game manager's view is in part determined by personal conviction on certain questions of abstract principle, not easily proven either pro or con.

One of these is that the opportunity to see predators has just as high a sport value as the opportunity to see game, and if we can have a reasonable amount of game without blanket vermin control, then those who practice it are, wittingly or unwittingly, disregarding the rights and interests of others.

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Practical Considerations

No game manager has ever said that all predator-control is useless or wrong. Most game managers agree, however, that "campaigns" (i.e., the artificial whipping up of control activities by bounties, prizes, or competition) are inherently devoid of discrimination in what, where, when, or how much to control.

They also agree that discrimination is usually obtainable only where control, if any, is based on research.

They also agree that poison, dynamite, and other wholesale weapons are open to the same objection as campaigns, in addition to being questionable ethics.

Finally, game managers draw a distinct line between predators which are easily vulnerable to over-control (lion, hawk, owl) and those which are "tough" and resistant to abuse (crow, coyote, weasel). The danger of mistakes lies, of course, mainly in the vulnerable species, but a bad principle followed in one class easily spreads to the other.

Let me know what conclusions your group reaches. Our crowd does not want to shove either opinions or evidence down anyone's throat. If American conservationists cannot achieve wisdom by conviction, they cannot achieve it at all. Moreover we game managers have no monopoly on wisdom. We know we do not yet understand predation problems, but we believe our fragments of advice are more reliable than the advice of those who know all about it.

Yours sincerely,

Aldo Leopold
Professor of Game Management

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