

December 12, 1932

Mr. Burr G. Lichty,
c/o Smith, Lichty and Hillman Co.,
Waterloo, Iowa

Dear Mr. Lichty:

I received some days ago your letter of inquiry relative to the restoration of sloughs for the preparation of aquatic bird life.

A number of states, and private individuals, are now restoring marshes and creating artificial lakes of varying sizes by the same method that you mention, namely the building of dams across ditches, etc. I am not an engineer so I can give you no worth while information as to the technique of building these dams; I would suggest that you make inquiry of qualified persons elsewhere on this point.

In judging the value of waterfowl breeding grounds two things must be kept uppermost in mind; first, there should be adequate vegetation on the shore to provide a suitable place for ducks to nest. On the basis of data from between 200 to 250 duck nests which the State College has acquired the last season it may be said that unpastured grassy vegetation should extend back from the marsh for 100 yards or so in some direction or other. This does not mean that there must be a continuous border of this width about the water. It would be most feasible to fence off a corner or two of the most convenient adjacent pasture land or whatever you have. Second, in addition to adequate nesting grounds the waterfowl environment must furnish a suitable place for the young ducks to be reared; this is represented most effectively by rushes, weeds, sedges, etc, in thick growths over the water.

So far as the muskrats are concerned, I see no reason why you cannot raise at the same time at least a moderate population of these animals, of course, it may be undesirable to have excessive numbers in a restricted area, in which event if faced by food shortage they might do a great deal to both plant and animal life. In reasonable numbers, however, they should not cause much trouble, although they very likely might capture a duckling

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or two that was slow about getting away. Almost all of these rodents will eat animal matter if they have a chance, but the native muskrat and the native wild ducks have lived together, in let us presume fairly satisfactory relation for some thousands or hundreds of thousands of years. I would suspect that in a small slough the greatest danger from muskrats would arise on account of the possible ~~attack~~ ^{effect} on limited aquatic vegetation; if the vegetation is exceedingly dense the muskrats, by opening it up somewhat, could very easily improve the environment for ducks.

Doubtless in the practical administration of such an area numerous questions will present themselves which cannot be answered in advance. The important thing is to keep one's eyes open and to govern one's management measures according to the needs that seem most apparent.

I hope, sometime within the next month or two, to visit you at Waterloo, and will then have a greater opportunity for discussing with you in more detail whatever plans you may have in mind.

Sincerely yours,

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Paul L. Errington,
Asst. Prof. Wild
Life Research