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Reports on Waterfowl Food Resources and Shooting Survey
The Lower Columbia River District

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WATER AREAS

Topographically this region of once the greatest waterfowl concentration in the Pacific Northwest is best defined by including the deltas of the Willamette, the Lewis, the Kalama, and the Cowlitz rivers at their confluence with the Columbia, perhaps fifty miles up and down the latter stream - from Portland to Longview. On the Washington side, below Vancouver, are five or six lakes of considerable size and numerous sloughs. On the Oregon side are the lakes between Portland and the main channel of the Willamette, and the many lakes and sloughs of Sauvie Island, which extends down to St. Helens. There are also the ponds and sloughs at Deer Island and the reduced water areas of the Scappoose country. Below and above the district as thus defined the channel of the Columbia is more restricted by highlands.

The water areas themselves are variable in size, shrinking back from shore lines in late summer but only the smaller ponds going entirely dry. All are comparatively shallow. They are at their highest normal stage at the time of the winter concentration of the waterfowl. Few are entirely stagnant except at their lowest stage.

CONDITIONS

The district of the lower Columbia, from Portland to the sea, has suffered more depreciation in its waterfowl resources than any other area of the Pacific Northwest where species of ducks and geese were wont to concentrate in migration or nest in season. That the numerous ponds, lakes and sloughs of the river's flood plain once grew luxuriant with food plants for waterfowl and teemed with ducks and geese in migrations, is a matter of record in writings and much

comment by older residents and sportsmen of the district.

But the earlier settlements and growth of cities were in this stretch of some ninety miles of valley and channel, and the encroachments of agriculture and river traffic menaced all wildlife from the first. Then came the market hunter, with interests and methods comparable to the plainsmen who slew the buffalo. After him the proto-sportsman who got the limit, when there wasn't any limit, and had his picture taken to prove it.

To further affront and appall the harrassed waterfowl, certain naturalists, sportsmen, or perhaps just sordid commercial interests - we have not been able to fix responsibility - introduced the European carp into the waters of the lower Columbia flood plain. From that day, several decades ago, was sealed the doom of food-producing water plants and marsh plants on lands subject to annual or even occasional overflow. Remnants of a growth of the Spatterdock (Nymphae polysepala) are about all that remain in the otherwise barren waters to attest the growth of a former plant life reputed to have been abundant.

By reason of the menace of overflow at times, the agricultural lands of this district may be classed as mainly submarginal, particularly so above St. Helens, where the Multnomah channel of the Willamette River enters the Columbia. Permanent improvements and cropping are therefore confined to the higher areas, while the lower lands are given over to grazing - very much overdone. As a result vegetation which might furnish subsistence to waterfowl is close cropped to the shore line - by cattle on the one side and by carp on the other, and, believe it or not, with some overlapping.

In some regions of waterfowl concentration agricultural practice compensates for reduction in the natural subsistence for wildlife by unwittingly providing grain fields, rice swamps, meadows, and stubble, in which the birds

may feed. In the lower Columbia country there has been little of this helpful provision, except in the Scappoose drainage district where dike and ditch, though reducing the permanent bodies of water, have multiplied the grain fields. Deer Island, a few miles below St. Helens, has also contributed to waterfowl subsistence and security through its present plan of ranch management.

IMPROVEMENT

Any plan to improve the waterfowl situation in the lower Columbia district will have to take the carp into account. Agricultural practice may be varied as desired to furnish an increased food supply for the birds. For, after all, if we want ducks and field recreation we may have these things instead of more butterfat, beans, and potatoes from the same grounds. It seems to be a matter of choice - no longer one of reliance on a bountiful nature for both. But, as in providing for the conservation and increase of any other type of wildlife, we must reduce the competitors for food, or the predators, or both; so with the ducks it will be necessary to wrest from the carp, as far as is practicable, the natural feeding waters the birds once enjoyed.

Diking the lands of the lower Columbia flats to prevent reinfestation of lakes and ponds by carp does not appear to be practicable on a large scale because of the occasional high flood stages of the rise in the river. In restricted areas, however, the plan is entirely practicable, with no great cost of construction. Seining the carp from the shallower ponds is feasible, and trapping these fish in baited enclosures of the larger ponds and lakes will materially reduce the carp infestation.

As to increasing the food supply for waterfowl in this district by direct cultivation, it is certain that shore-land plants which will produce subsistence for ducks in seed, root, or stem are worthy of trial, especially if the cultivated areas will normally be submerged at the coming of the fall rains.

And the possibilities of duck-feed production under conditions of controlled water supply may be measured only by the interest that the sportsman or the land owner may have in waterfowl conservation and the extent to which he may wish to support the proposal with time, labor, and funds. There is plenty of water, and some have been found also who are ready enough to follow the plan in the creation of lakes for the shooting season by the use of pumps, dike, and ditch.

There is still another problem that merits attention as it relates to the production of more food for waterfowl in this district - to find a short season crop that will mature suitable seeds or root structures in the growing period between the usual June rise in the river and the fall arrival of the ducks in migration. Failing in this, perhaps only green forage can be so provided. If a perennial crop is used, it will need be one that can survive a period of inundation.

It is not to be understood that there is no native food at all for waterfowl in this district of submarginal lands, lakes, ponds, and sloughs. There are smaller fields, corners, nooks that are not pastured and smaller bodies of water that are not infested by the carp. In these situations we find surviving remnants of plant species that were probably once abundant -- particularly the Wapato (Sagittaria), Bur Reed (Sparganium), Water Plantain (Alisma), and an aquatic Polygonum (P. amphibium). There are also, on the cultivated lands, waste patches of native and introduced Polygonums and on the hay lands a considerable acreage of swale sedge (Carex lyngbyi), which grows fresh and green after the fall mowing. The pastures, however, furnish but little duck food. They are usually pretty foul with weeds, seeded by the spreading waters at the time of overflow. Particularly obtrusive in late summer are two species of Halenium. Submersed aquatics have almost entirely disappeared from the ponds.

SHOOTING SURVEY

The lower Columbia river district has long been a gunner's paradise

by reason of its earlier abundance of desirable waterfowl. Inland from the sea, it has fewer of the shore ducks than the coastal region and, in addition, receives flights from the hinterland, down the water lane of the Columbia. It is not evident that many ducks cross the Cascades from the interior plains into the Puget Sound country.

In earlier years this sportsman's paradise was devastated by the market hunter, who killed by the boat load, and the reckless gunner who shot to see the birds fall. More recently practically all of the shooting is done on baited premises, leased or owned by small groups of sportsmen who protect their privilege under trespass laws. The greater numbers of these are Portland business men. Sometimes the duck club consists of the owner or lessee of the shooting site and his guests, more often it is an association of a small number of gunners who share the expense of the sporting venture. Then there is the strictly commercial duck club, under a management that sells the shooting rights by the season, or by the day, with profit to the manager. A few of the clubs have a keeper on the grounds the year around, to care for the property and perhaps raise a flock of decoys. But most the shooting organizations have a man to watch and feed during the open season only, taking charge usually two or three weeks in advance.

The Columbia river district must depend more upon northern flights of waterfowl in its shooting season than does the Puget Sound country. For while parts of the latter region are well within the breeding range of the Mallard, particularly, high water stages in the Columbia flood plain are a hazard to nesting. In the open season of 1934 concentration of ducks about the lower Columbia was at least as great as the previous season, and was reported by most observers to have been heavier than for several years. In contacting Sauvie Island and adjacent territory at many points during the food resource survey in August and September, we found the birds very scarce.

By direct contact with many of the duck clubs between Portland and the sea, and through correspondence with others, we have succeeded in enlisting the cooperation of about sixty groups from this district in reporting on their shooting logs for the past season, as well as offering constructive criticism. Some, perhaps many others have reported only to the office at Washington, D. C., on blanks furnished with the federal baiting permit. The number of reports we have, however, should give a good cross section of the waterfowl situation at this time, when the recent post-season survey or census is also taken into account.

In the lists of federal baiting permits issued to gunners in the lower Columbia district - three counties on the Oregon side and three on the Washington side - were 66 permits to clubs or other groups of two or more individuals. By coincidence, an equal number was issued in the name of one person only. From our knowledge of the field, it is certain that many of these permittees did not bait at all during the season, or at most did not feed continuously. But, at that, the numbers of birds taken in the season, as reported by the 60 cooperating clubs, will be considerably short of the total kill. The following summary will perhaps have its greatest value in the comparisons of species:

		Percentage, ducks only
Mallard	8,611	30.45%
Widgeon	5,824	20.6 %
Pintail	8,956	31.77%
Green-winged Teal	3,985	14.09%
Bluebill	459	1.62%
Spoonbill	296	1.04%
Canvasback	141	.49%
Canada Goose	250	
Brant	64	
Gadwall	1	
Goldeneye	4	
Snow Goose	3	

It should be noted here that practically all of the Canvasback were

taken about one small lake on the Oregon side of the Columbia, near the mouth, and that this lake with one other, about 30 miles southwest of Portland, has nearly all the ducks of this species observed or reported in western Oregon-Washington. The Bluebills also, in this summary, were mostly from the coast north and south of the mouth of the Columbia.

RECOMMENDATIONS

1. In the heart of the waterfowl concentration and shooting area of Sauvie Island, a few miles below Portland, is Sturgeon Lake, a large body of water constituted a refuge by the State Game Commission of Oregon. Its value as such had depreciated considerably in recent years on account of the activities of a few gunners whose holdings project some distance into the lake proper -- Coon Point, Holman Point, and Horse-shoe Island. From the standpoint of this report, we heartily commend plans now on foot to secure a cession of the State rights and to purchase the small and objectionable private holdings (see map of the proposal).

2. It is evident that the Canvasback ducks are on their last legs (and wings) in the Oregon-Washington coast country. Comparison of present very small numbers with much greater numbers of record, suggests that the species be fully protected for some years. Also, to foster increase, it appears desirable that the two small "Canvasback lakes" mentioned in the shooting survey, this report, be in some way designated as sanctuaries where the birds may be fed in season, if necessary, and safeguarded against the shooting incident to taking their species.

3. Anent the general and unfavorable criticism of duck clubs by "outside" shooters and by the larger sportsmen's associations, it is probably better for the wildfowl that this system of gunning be continued. As custodian of these game birds, the federal government has not enough ducks to go around if the general shooting public were invited to sit in, with no tables reserved. This may not seem to be democratic, but what are we to do with a fading resource that must be perpetuated and, in our present knowledge, can not be kept up by artificial propa-

gation?

In this connection, we believe that the duck clubs should be held to stricter accounting of their privilege and as a first step be required to incorporate and pay a federal club license, defining their responsibilities and establishing their shooting locations. Further, if commercial shooting for the profit of a promoter can be eliminated from the club system, conservation of waterfowl will have scored another point.

4. For the sake of the gunner's own self-esteem as a marksman; as a better break for the ducks; to discourage reckless shooting, with its harvest of crippled birds; and as a sporting gesture to our friends on the Canadian side, we should bury the automatic shotgun and confine ourselves to the 2-shot or, at most, the 3-shot fowling piece.

5. From the adverse criticism that has been given certain features of the shooting reports requested or required by the federal custodianship, it would seem best to amend these in the objectionable particulars called to our attention. Burdensome requirements are not kindly tolerated by the average sportsman, who is usually out for recreation and freedom from brain stress for a time. And the bother of it all does not make it easier to secure his hearty voluntary cooperation.

Respectfully Submitted,

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