UNITED STATES GOVERNMENT

Memorandum

TO : Wildlife Administrator, BSF&W, Kenai

DATE: August 23, 1965

FROM : Game Management Agent, BSF&W, Anchorage

SUBJECT: Long Lake Banding Project - 1965

Introduction: Long Lake is situated thirty-six air miles northwest of Bethel in the Kuskokwim Delta area. The Eskimo name for Long Lake is Takslesluk and has been historically a site of duck driving by the Eskimos native to the area. The lake is roughly twelve miles long by three miles wide and water depth normally ranges from two to six feet throughout the lake. This year the water level was approximately one to two feet higher than normal causing problems with trap location.

Personnel assigned to the project were:

Ray Tremblay, USGMA, Crew Leader
Keith Banning, USGMA, Juneau
Wallace Smith, USGMA, Anchorage
Jim King, Waterfowl Supervisor, Juneau
Wallace Smith, Jr., Anchorage
Peter Issacs, Eskimo, Kasigluk
Elia Tinker, Eskimo, Kasigluk
Assisted during the drive and banding operation by Dr. Calvin Lensink, Refuge Manager, Bethel, and two temporary employees.

The dates at the banding site were July 27 through August 8. As in the past, the objective was to drive several thousand divers which are predominately scaup and old squaw into a large holding pen. The ducks would then be brailled from a catch pen into burlap bags and banded.

Methods: Equipment used this year included three aircraft; Beaver N715, Cessnas N750 and N784. Due to a prior commitment, the Beaver had to be traded during the last part of the operation for Grumman Goose N789 which was then used for a portion of the second drive and for freighting the camp and trap equipment back to Bethel. In addition to the aircraft we had two native Eskimo boats and two sectional boats.

The camp gear and trapping equipment were freighted to Long Lake from Bethel on July 27 and 28. The camp was established and trap building commenced by Agents Banning and Smith on the afternoon of the 28th.

This year for the first time a new type trap was built, utilizing one inch nylon prehung net in 150 foot sections, twelve feet deep with a braided lead line on the bottom. Two types of metal stakes were used, one of three-quarter inch metal tubing and the other of "T" stock aluminum material. These stakes proved far superior to

wood, especially for the combination mud and hard clay bottom of Long Lake. Since this was a new type trap, there was considerable trial and error involved in the installation. The shape was similar to the wire traps we have built in the past, being approximately 350 feet long by 50 feet wide at the mouth with considerable taper towards the catching pen. The stakes were placed at ten foot intervals and we feel that for future traps this span could be lengthened to fifteen feet and possibly twenty feet in some cases. The shore lead was constructed of wire due to the lack of sufficient netting. The first 200 feet of outside lead was of the same one inch trap mesh with the remaining 600 feet being nylon seine that has been used during the past several years for this purpose. The trap was built in water ranging from three to four feet in depth. The net extended two feet above the water line with the lead line pulled inward and laying on the bottom approximately three feet from the stakes. There was a long stemmed grass growth along the entire shore line which had a tendency to float portions of the net causing the waves to occasionally pick up the lead line. By pulling out a swath along the inside of the poles, the net hung properly keeping the lead line on the bottom.

The catch pen was triangular in shape, sixteen feet to a side and five feet high, constructed from three-quarter inch square metal tubing. It was prefabricated in Anchorage and had an inverted "V" door which could be closed by easily removing one pin. One inch nylon web was used for the sides and the larger net for the bottom. Since this was the first attempt at this, the hanging of the web onto the pen was the most time consuming job. In the future, we plan to prefabricate the net which can then be hung with much less effort. The pen was easily lifted by three men, placed on the wooden boats and floated to the trap site. Attaching it to the holding pen took only a matter of minutes. It proved highly successful both to drive birds into and for brailling, however, we felt that a smaller pen might be more desirable.

Drives: During the five days that it took to erect camp and construct the trap, the weather was excellent with the sun shining and very little wind. The mosquito crop was excellent. However, by August 2, the weather picture changed and we were hampered by inclement weather. High winds up to forty miles per hour, rain and fog made any drives impossible until the morning of August 6th when the wind diminished at approximately 10:00 A.M. The decision was made to attempt a drive realizing that in the past at least twelve hours of driving time was involved and a late start was not desirable, however, it appeared that we had little choice. The three aircraft commenced driving at approximately 11:00A.M. and had worked the birds two-thirds of the way down the lake by the time the boats joined the drive at 3:00 P.M. It was difficult to estimate the number of birds involved, however, I believe it would be safe to say there were over 5000 ahead of the drivers. The inevitable happened. Since there is no way that diving ducks can be pushed too rapidly during the last portion of the drive, the slow progress caught us at the critical point when darkness set in at about 9:30 P.M. The drive was not abandoned in hopes that the lights of the airplane and the noise would drive the birds into the pen, however by 11:30 P.M., it was evident we had lost the battle. Approximately 200 ducks were caught.

At 5:00 A.M. the next morning the Beaver was serviced for a second drive effort in hopes that the birds had rested during the few hours of darkness and would be on the trap end of the lake. Ironically, however, an east wind had come up sometime after midnight which was strong enough to move the biggest portion of the birds away from the trap location. This fact, coupled with early morning fog, prevented a second drive from commencing down the lake any further than about five miles from the trap. By 8:00 A.M. the other two aircraft joined the drive and were followed by the boats. A flight over the lake after the fog lifted showed that most of the ducks were behind the drive, however, it was felt that due to the unsettled weather a small drive would be better than none. The short drive continued and was over with by noon, resulting in another 500 birds in the trap. Any ideas of a third drive had to be abandoned since Dr. Lensink and his crew had brant banding commitments at Chevak and more poor weather was forecasted. It was also apparent when handling the birds that the scaup were in the final stages of the molt and the majority would be flying within the next few days.

The banding was accomplished in approximately three hours with the exception of sixty-four old squaws which were removed from the trap the following morning as it was dismantled. The trap was disassembled in approximately three hours the morning of the 8th with the most time consuming job being the removal of the wire on the inshore lead. The rolls of wire used were given to the two Eskimo employees. That afternoon the camp was dismantled and all of the equipment hauled into Bethel in three loads with the Grumman Goose and stored at the Refuge Headquarters site. The high winds and poor weather continued and the two Anchorage based aircraft could not be ferried until the 10th of August.

The dead ducks and three burlap bags full of pike caught in the trap were given to the Eskimo employees for consumption.

Results:

Species		Total
Greater Scaup		138
Lesser Scaup		2
Old Squaw		404
Bufflehead		35
American Goldeneye		10
Total birds banded		589
Mortality		12
Recoveries		12
Total birds handled		613
% mortality birds handled		1.9%
Man hours trap building		156.5
Man hours driving	(Aircraft)	46
	(Boat)	54
Man hours banding		30
Total man hours		286.5

Evaluation: All participants agreed that Long Lake should be abandoned as a banding location. A lake this large is too exposed for the marginal weather and high winds that predominate the Bethel country. This weather has caused two unsuccessful banding operations out of three. There are many smaller lakes that contain several hundred to a thousand molting birds scattered around the delta. With the new type nylon net trap and more refinements, we should have a trap that can be installed in half a day or less on the smaller lakes, drives accomplished in most weather, and the entire operation completed in one day. This type of operation would also lend itself to basing at a Headquarters site such as Bethel and doing away with the tent camp. Much time and labor is involved in transporting, setting up the camp and maintaining it, and at best is poor housing for the austere weather of the area. Wet bedding, clothing and gear is not conducive to the morale of a hardworking crew.

The web trap proved highly successful. When modified, an experienced crew should be able to set it up in a matter of hours. It can also be broken down easily and freighted to new locations in the Beaver or Grumman aircraft. In the case of the Beavers, the metal poles can be tied to the floats. The catching pen should be redesigned and made sectional. It would then be a matter of estimating the number of birds on a given lake and setting up as many sections as necessary. Each section should be the same size so that all of the pieces are interchangeable and will not have to be marked and kept separate. We are undoubtedly on the right track with a simple, prefabricated, portable trap which can be moved from one location to another.

The Beaver aircraft which was used for the first time in our operation proved excellent for both freighting and driving. We were able to move the gear to the trap location in half the time that would have been required with two 180's. It was also superior to the 180's in the choppy water during the drive. The Goose was used during the last portion of the second drive and also proved quite versatile for driving and would undoubtedly be the best aircraft for rough water work. The propellers on the Beaver and 180's were extremely vulnerable during the rough water taxi operation of the drive and took quite a beating. This problem can be solved in the future with the use of a strip of tape along the leading edge of the tips.

For future operations, two Beavers would handle the job adequately for any type of banding operation. If a large portable operation was planned where distances were involved, the Grumman would be especially useful for hauling the biggest portion of the weight and personnel.

The two eskimos from Kasigluk again proved to be enthusiastic workers and provided another needed boost to our public relations program in the area. Without their larger boats, the trap building job would have been more time consuming.

Conclusion: Even though the banding operation failed due to the weather, there was considerable value gained in a new trap design and construction which will give our program more flexibility. Most of the "bugs" were worked out and by formulating our respective ideas this winter, the end result will be a light portable trap that can

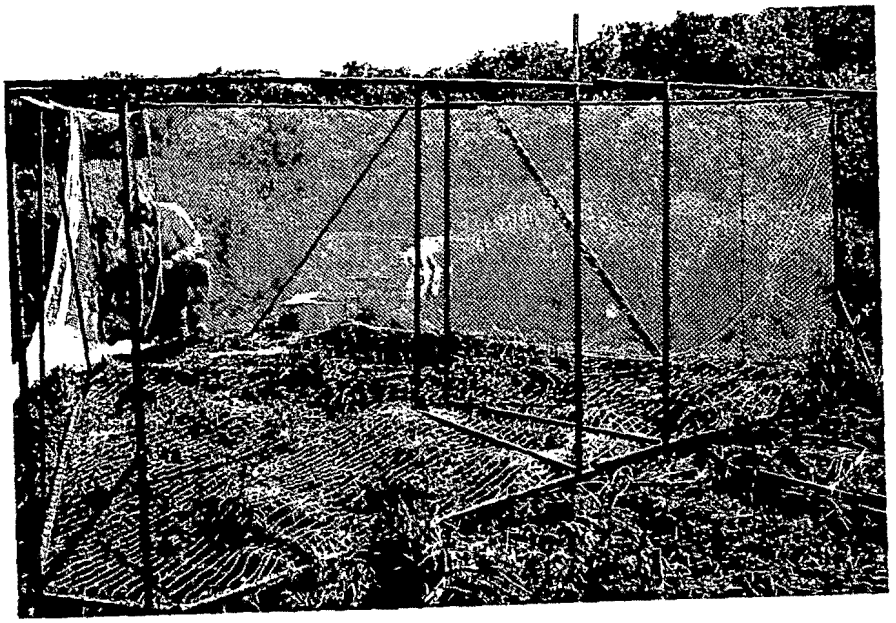
be erected in a matter of a few hours and moved to take advantage of molting ducks and geese on the smaller lakes. This should insure us of a more successful banding operation regardless of weather which is undoubtedly the biggest hindrance to our program on the Delta.

Ray Tremblay

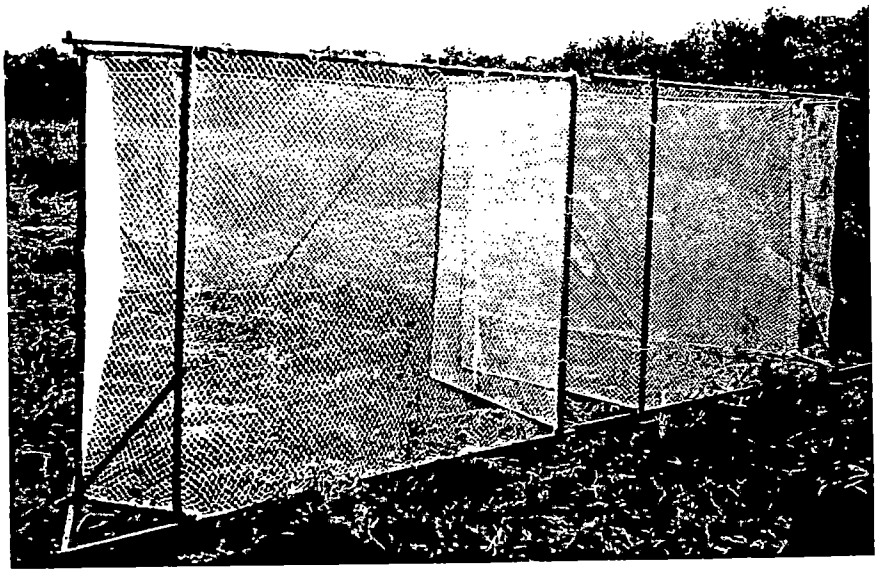
Enclosures:
Snapshots

cc: Regional Director, Portland
Waterfowl Supervisor, Juneau
Refuge Manager, Bethel
USGMA Argy, Fairbanks

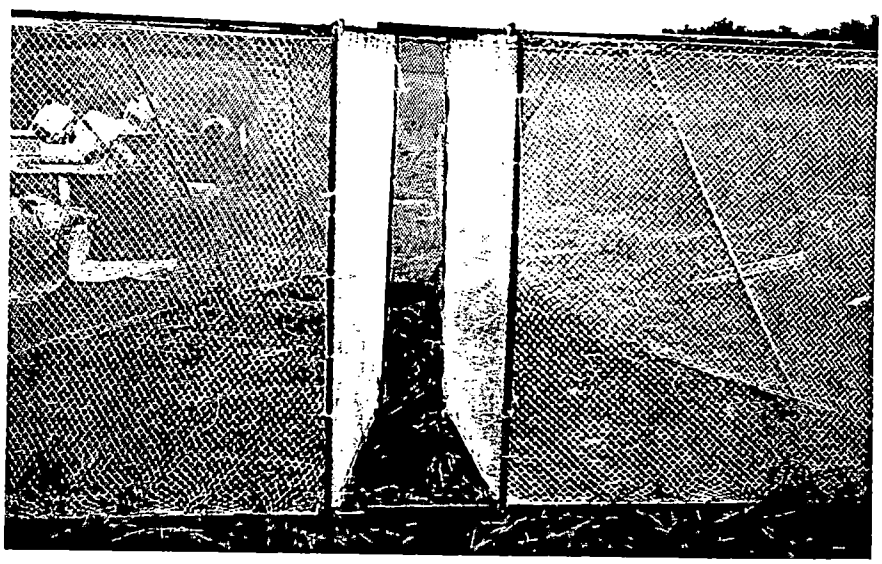
Catch pen inverted with floor netting in place.



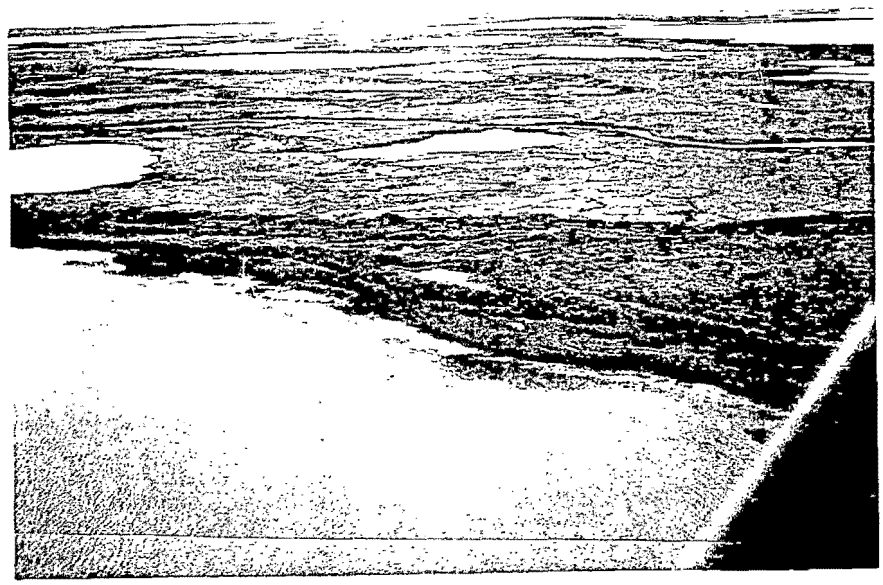
Catch pen showing design and side webbing being laced to frame.



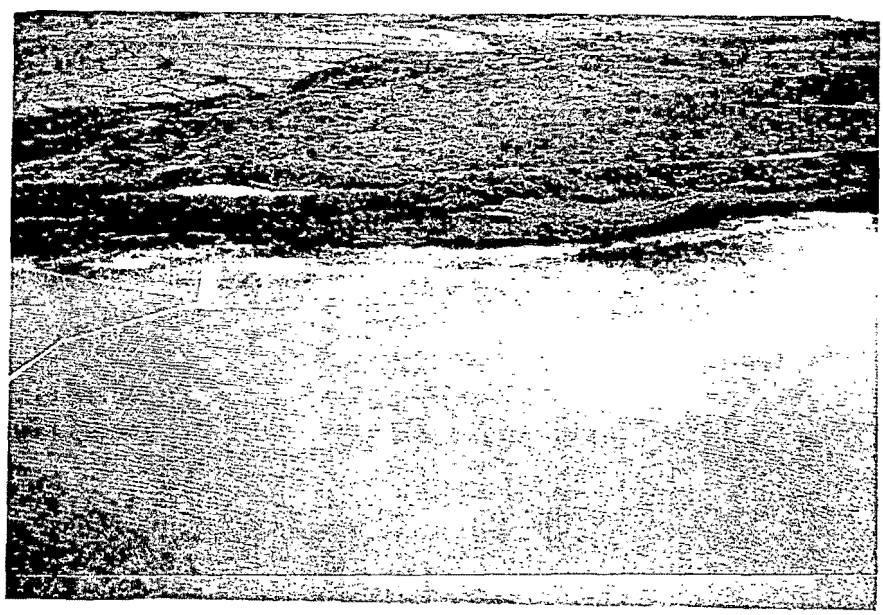
Completed catch pen.



Catch pen door which can be closed by removing one pin.



Aerial view of trap.



Banding crew in operation.