DOG BANDING MOLTING WATERFOWL IN LABRADOR

4 - 15 JULY 1982 PERMIT #10417

W. R. BARROW

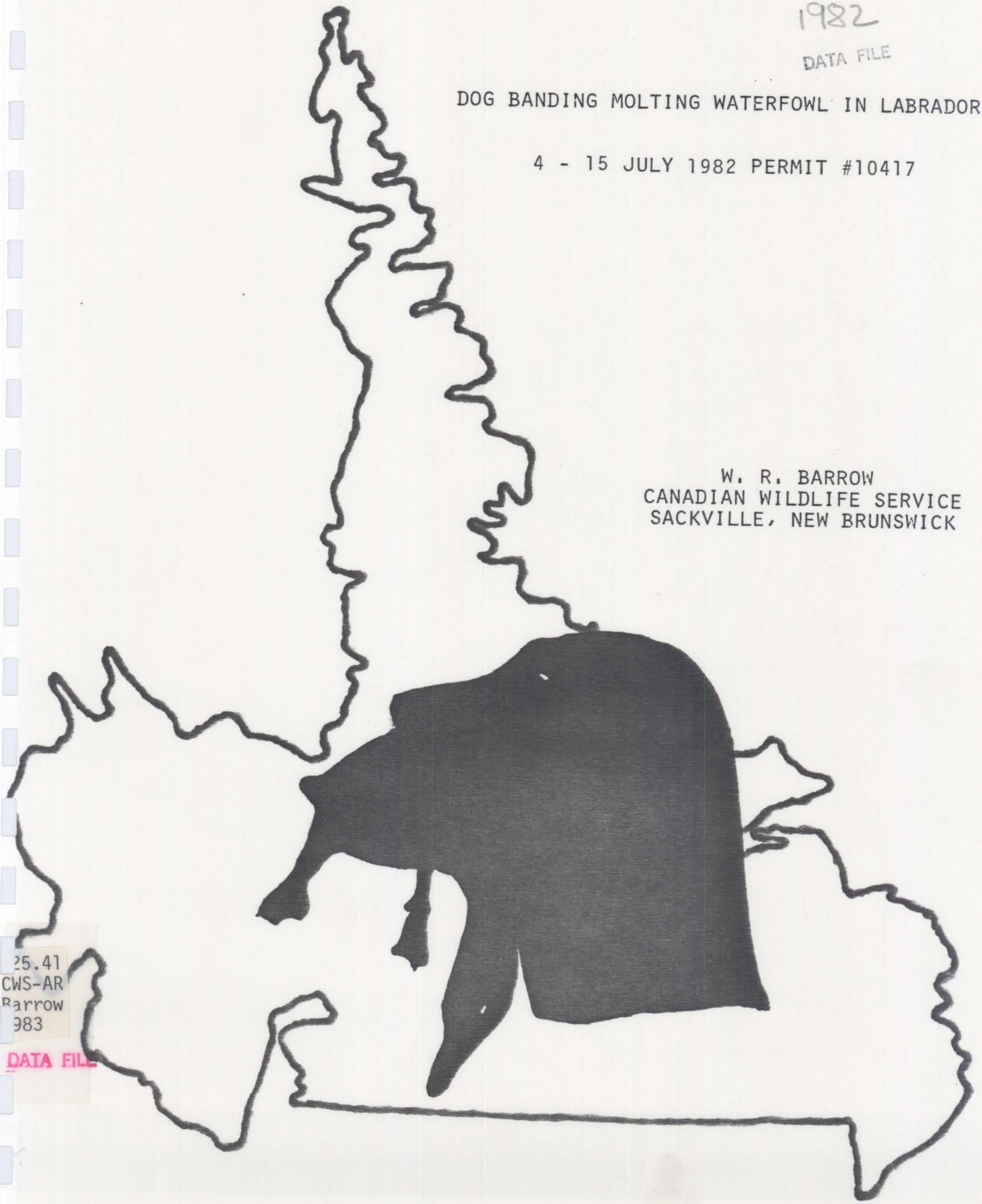
Canadian Wildlife Service, Sackville, N. B.

CANADIAN WILDLIFE SERVICE
P. O. BOX 1590
SACKVILLE, N. B.
E0A 3C0

DOG BANDING MOLTING WATERFOWL IN LABRADOR

4 - 15 JULY 1982 PERMIT #10417

W. R. BARROW
CANADIAN WILDLIFE SERVICE
SACKVILLE, NEW BRUNSWICK



Dog Banding Molting Waterfowl in Labrador

4 - 15 July 1982 Permit #10417

Introduction

Waterfowl banding and related work in Labrador were sporadic prior to the 1980's. The Northeast Wildlife Station under Bruce Wright initiated banding at Tinker Harbour in 1947 followed by G. North (1950) and F. G. Cooch (1951). In 1954-55 C. P. Gilchrist and E. B. Chamberlain banded in Nain Bay and in 1962 Parker and Brown worked at Lobatick Lake which is now part of the Smallwood Reservoir. Population surveys were also carried out by the United States Fish & Wildlife Service in the early fifties and sixties.

In 1970 Doug Gillespie, Canadian Wildlife Service and Steve Wetmore, Newfoundland Wildlife Division carried out an extensive waterfowl survey in the Lake Plateau area of southwestern Labrador. Ten years later in 1980 Canadian Wildlife Service personnel from Sackville, New Brunswick repeated the "Plateau Surveys" and conducted an aerial strip census in Southeastern Labrador. The following year extensive ground studies of breeding waterfowl were conducted. In 1981 banding attempts were resumed at Tinker Harbour and initiated for the first time at Snegamook Lake in interior Labrador. During bait banding efforts at Snegamook Lake, approximately thirty Black Ducks were captured by use of a pointing dog. As a result, it was recommended and approved that an increased dog banding effort be tried in 1982.

Work Area

Three traditional molting areas for Canada Geese and Black Ducks pre determined by the most recent Canadian Wildlife Service surveys were worked in 1982. Two of these areas (Snegamook and West Micmac Lakes) are

located in the Postville Region, as designated under the Ecological (Bio-Physical) Land Classification of Labrador published by the Environmental Management Service, March 1977. It is described as follows:

Postville (18,140 sq. km: 6% of Labrador). "This region of sand and gravel plains, deltas and rugged hills extends west from Postville to include the Kanairiktok River. Generally only slow growing spruce and balsam fir forests occur in this region. Relatively better growing stands do occur along streams and lower slopes in the hilly districts. The excessively drained sand plains support a dense lichen growth".

Although located within the same region, Snegamook and West Micmac are quite different:

Snegamook Lake is a very large clear water lake located in the Kanairiktok River system as designated on 1:50,000 map sheets 13K11 & 12. The western portion of this lake is a complicated system of bogs, small lakes and ponds, inland bays and river systems which provide an area of unlimited habitat for molting waterfowl. A dog banding crew can easily work two weeks in this area without covering all molting habitat.

West Micmac Lake is a smaller muddy water system which can be worked in one and a half days. It is located in the Kaipokok River system and found on 1:50,000 map sheet 13K9E & W. The inlet island delta system was a very difficult area to work. A thick jungle of alder and willow grow to the waters edge and the muddy water makes any form of travel difficult.

Flat Water Bay is located within the Porcupine Strand Region (1390 sq. km: 5% of Labrador). "Bogs surrounded by forest on well drained sites typify this region which borders Groswater Bay. The many excessively drained sites

support open stands of black spruce with a lichen ground cover. These sites contain soil materials that are either deposited by glacial meltwaters or are remnants of former beaches. Bog development is predominant on poorly drained marine sediments. This Region's coastline, unlike adjacent Regions, becomes ice free as early as April.

The river system emptying into Flatwater Bay is found on 1:50,000 map sheet 131/4E. A large sedge meadow and pond area is maintained by numerous beaver dams and would require several weeks to cover; however, the upper limits of the river can be worked in two days. If important new molting areas are discovered, it would be an excellent area for an extended work period.

The three locations worked by dog in 1982 are shown in Figures 1-4.

Technique

An aerial survey over the work area helped locate bird concentrations after which two methods were used to capture molting waterfowl with a German Wire-haired Pointer.

Driving

During routine travel throughout the work areas small rafts of molting Canada Geese and Black Ducks were encountered. Some of those birds were forced ashore by slow zig zag maneuvers of the canoe and then worked with the dog.

Search

Many miles of fringe habitat had to be walked by the handler and dog. This area of dense sedge grasses interspersed with spiraea, willow

and alder was located between the water line and the spruce forest and was preferred by molting Black Duck as escape cover. Typically, the dog and handler were dropped by boat at a selected point and picked up later at a predetermined distance down the shoreline. Table 1 contains the results of the 1981-82 dog banding program.

Waterfowl behaviour

The gregarious nature of adult molting Black Ducks and Canada Geese in Labrador is favourable for a dog banding exercise. Both species were observed during ground and aerial surveys in small flocks (5-100) or in larger rafts on lake and river systems. Although sociable by nature, these birds never travelled together and their response to pursuit was somewhat different. Black Duck were observed and banded in all types of aquatic and terrestrial habitat. When approached from water a flock would attempt to hide by submerging all of their body, except the head and then fan out as an escape maneuver. By manipulating the boat and concentrating on the greater number of birds some could be forced ashore. Pushing the birds too fast caused some to dive or dispersed the flock too fast. Commonly as many as 20 birds could be forced ashore at one time. Of that number one might hide at the shore edge, five more might hide within fifty feet of the edge while the others would go hundreds of yards inland and circle back to the lake. It was amazing to see how fast those birds travelled and the distance covered over rough and dense terrain. Young birds were found to be as mobile as adults (Addy, Boyer, Cook, 1949). When banding with a Labrador retriever throughout New Brunswick, Nova Scotia and Prince Edward Island, immature birds were observed to travel several hundred yards inland in a

Table 1. Total dog banded waterfowl by area, sex and age class Labrador (1981-82)

Area	After Hatch Year Male	Female	Total	Bands used
Snegamook Lake 1981				
Black Duck	27	-	27	1147-01801-27
Canada Goose	1	-	1	628-75007
Snegamook Lake 1982				
Black Duck	60		60	1147-01835-94
Canada Goose	2	4	6	628-75008-13
West Micmac Lake 1982				
Black Duck	11		11	1147-01895-01900 1237-57401-5
Canada Goose	1	3	4	628-75014-17
Flat Water 1982				
Black Duck	26		26	1237-5746 - 31
Canada Goose	1	1	2	628-75018-19
			137	

matter of a few minutes. If not running, Black Duck are experts at hiding. Birds have been picked up under water, in holes, under tree roots and under massive piles of driftwood which sometimes stretched for hundreds of yards. Birds when pushed from water were difficult to catch unless there was no means of escape. For example, on one occasion a flock of eight Black Duck were pushed ashore at Sand Point on Snegamook Lake. Up-rooted trees at the water edge and a 20' bank made escape impossible and all birds were captured and banded. Also if Black Ducks can be pushed from the water to sedge cover they tend to travel less and hide more readily as demonstrated by a flock of 30 blacks pushed to a forested edge with a moss carpet understory. Only three of those birds were captured of which two were recaptures. It is certain that most travelled long distances whereas the presence of sedge cover would have allowed the birds to hide and thus remain stationary long enough to be found by the dog.

Sedentary does not describe a molting Black Duck as they have been observed swimming across miles of open water to new feeding areas or to satisfy their social requirements. In protected areas, however, it appears that they also spread out for food and cover requirements. This was an ideal situation for both the dog and Black Duck. Neither became excited and when approached the birds usually hid in the immediate cover. Occasionally, ducks were sitting quietly in plain view on shore and it was a simple matter to bend over and pick them up. Many birds were pointed in this situation and retrievals were usually short. Black Ducks seldom struggled when handled by the dog.

<u>Canada Geese</u> were always sighted on water and had to be forced to land before capture and banding. The behaviour of geese when approached by

water was similar to Black Ducks (low profile and dispersal), however, they were less excited and deliberate in their actions and very difficult to push ashore. Some would dive to avoid going ashore but once on land they would either hide immediately or most often head for the horizon and hide when tired. Black Ducks cannot compare to Canada Geese for speed and ability to go great distances over rough terrain. Like Black Ducks, there was no struggle or vocal behaviour when captured by the dog but unlike Black Ducks, Canada Geese could never be worked in the same area on successive days. This was clearly demonstrated by a flock of 150 geese which was worked in a delta of West Micmac Lake but could not be found either by boat or from the air the following day.

Costing

The expenses incurred in the 1982 dog banding effort are shown in the following table:

Salaries	Air fare	Air freight Boat Rental	Vehicles, Food and Lodging
1850.00	692.00	420.32	1872.30

Air charter fee (transportation of men & equip)	Aerial Surveys	Gas & Oil (Mis. supplies)
4990.00	3603.00	257.02

Total Cost	Total Black Ducks	Cost/ Black Duck
13,684.69	97	141.07

The cost ($141.00) to dog band a Black Duck in Labrador is relatively high when compared to other stations in Atlantic Canada. Over the past two years,

however, it has been an economically competitive method to band Black Ducks in Labrador.

Observations

Brood observations were probably the most important sightings. All records occurred during dog banding work and there was no attempt to do early morning or evening brood counts. Brood banding was impossible this year as all duck broods were too young and the adult geese were very aggressive.

Area	Date	Brood	Size and Class
Snegamook Lake	6 July 1982	Canada Goose (pr.)	4-1B
Snegamook Lake	6 July 1982	Black Duck (hen)	4-1B
Snegamook Lake	8 July 1982	Canada Goose (pr.)	3-1C
Snegamook Lake	8 July 1982	Canada Goose (pr.)	4-1C
Snegamook Lake	9 July 1982	Goldeneye (hen)	11-1B
W. Micmac Lake	10 July 1982	Canada Goose (pr.)	4-2A
W. Micmac Lake	10 July 1982	Canada Goose (pr.)	4-2A
W. Micmac Lake	10 July 1982	Canada Goose (pr.)	4-2A
W. Micmac Lake	11 July 1982	Gr.winged-Teal (hen)	4+-1A
W. Micmac Lake	11 July 1982	Canada Goose (pr.)	5-2A
W. Micmac Lake	12 July 1982	Gr.-winged Teal	broody female
Flat Water	12 July 1982	Gr.-winged Teal	2 broody females
Flat Water	14 July 1982	Canada Goose	broody adult
Flat Water	14 July 1982	Common Eider	15-1B (several brood

Other Observations

Only Canada Geese and Black Ducks were found to be molting on the three work areas. A flock of forty Green-winged Teal were observed at Snegamook Lake and it was believed that they would molt later. Other waterfowl observed in small numbers were Mallards (2), Pintail (4), Goldeneye (2), Red-breasted Merganser (4) and Scoter (50). Two pairs of Osprey and Common Loons frequented the western half of Snegamook Lake.

At West Micmac Lake Red-breasted Merganser (3), Scoter (2), Goldeneye (1) and Am. Bittern (2) were observed and in the Flatwater area large numbers of Common Eider (500+), Red-breasted Mergansers (50+), Am. Bittern (2), osprey, Black Guillimot, loons and numerous gull colonies were seen.

The most spectacular mammal sightings were the Humpback and Minke whales at Flatwater. Other mammals included a cow and calf moose at Snegamook, 1 Black Bear and 2 beaver at West Micmac Lake and 1 otter at Flatwater.

Recaptures

A total of six Black Duck or 4.8% of the birds captured in 1981-82 were recaptures. The banding information is as follows:

Band Number	Age	Sex	Bander	Date(day/mo/yr)	Location
1157-74455	L	M	Maine F & W	27/08/79	Maine
1157-42915	AHY	M	Maine F & W	02/03/79	Maine
1187-80395	AHY	M	Pea Is. Refuge	19/01/81	North Carolina
1237-14981	AHY	M	P.E.I. F & W	05/02/82	P.E.I.
1287-35465	AHY	M	Mass. F & W	29/01/82	Mass.
897-73346	AHY	M	J.E. Forbes U.S. F & W	13/01/82	N.Y.

It is interesting to note that five of the recaptures were males, which were banded at winter banding stations in the southern part of their range. Only one bird was not banded as an adult. American researchers (Bellrose and Crompton 1970) have found that Black Ducks tend to return to their native marshes in the fall and winter. Also many people believe that after breeding, males move northward to secluded molting grounds. While those facts may explain the six recoveries, those birds could be part of the Labrador population. In either case, this population is certainly unique in that there have been no other sites in the Atlantic Region identified as molting areas for large numbers of male Black Duck.

Discussion & Recommendations

Relatively high costs require that future dog banding in Labrador be carefully evaluated by determining the importance of banding adult males to objectives of the banding program. To date dog banding is certainly the most efficient means of capturing Black Duck in Labrador. More birds were captured with a dog in ten days than over a several month period bait trapping. This will hopefully change, however, when the bait trapping technique is perfected at Tinker Harbour. The cost of future dog banding efforts will be nearly halved if volunteer help is used and only one area is worked. If these birds are a unique segment of the Black Duck population and if projected costs decrease, future dog banding efforts should be supported.

A 1983 program should include two dogs. Banding in Labrador is very hard on a dog and full recovery from a two week trip may take over a month. Dogs are required to work in ice cold water all day, travel through impregnable vegetation, experience cuts and bruises to their body, tolerate

stressful aircraft trips, endure over-exposure to inclement weather and suffer loss of appetite while working to the satsifaction of the handler. Two dogs would increase production and eliminate the risk of early termination of an expensive program due to injury to one dog.

A hunting bell should be used to eliminate mortality. If waterfowl (especially geese) are pushed ashore in dense vegetation, a bell will help in following the dog. Two geese were severely injured because of their size and long retrievals when the handler had no idea where the dog was. A frustrating situation occurs when the dog is off on a long track since the handler must be concerned about the return of his dog as well as the condition of the bird after a long retrieve. Also one Black Duck was injured when dug out a rubble pile. In addition to a bell, a good dog whistle is necessary.

As previously mentioned expenses can be cut substantially if only the Snegamook Lake area is worked. Camp site #2 is an excellent area for a base camp (Figure 2). Also it will be necessary to have early field camps at Molt Lake and Chain Lakes. This will save in travelling time and facilitate completion of work jn those areas before water levels become too low. A more extensive aerial survey of the banding area just prior to initiation of work is recommended.

A two month period for advanced preparation is required. In addition to personal gear and camping equipment, several permits are required. Forest travel permits, firearm permit, and fishing permits can be obtained from the forestry and wildlife offices. A dog must have a certificate of health and a recent rabies shot obtained from a local vet. Once obtained,an import permit can be issued by the Animal Health Section, Department of Rural Agriculture and Northern Development, St. John's,

Newfoundland. Travel arrangements should be arranged with local airlines as well as the bush plane service.

Proper equipment is a must for any successful field operation. The following listing is your most basic gear requirements with quantity and quality depending on the individual.

(1) 17' canoe & 4 H.P. motor

(2) paddles and life jackets

(3) gas cans (3)

(4) 2 cycle oil & lubricating oil

(5) plywood flooring for canoe

(6) burlap bags (4)

(7) small tool box

(8) 2 - 3 man tents

(9) sleeping bags and mats

(10) tarp & rope

(11) first aid kit

(12) banding kit

(13) shotgun & shells

(14) flashlights

(15) back packs

(16) duffle bag

(17) waterproof maps

(18) cooking & eating utensils

(19) catalytic heater

(20) cooler

(21) UHF radio

(22) binoculars

(23) 1/4" packing boxes and 5 gal pails

(24) wash basin and mirror

(25) matches and candles

(26) warm field clothing and rain gear

(27) fly dope (man and dog)

(28) shovel, hammer, axe and saw

(29) nails, spikes, wire

(30) fibreglass repair kit

(31) gromet repair kit

(32) flagging tape

(33) garbage and plastic bags

The above equipment and food should be packed in durable light weight containers which can be moved, packed easily in small aircraft and also serve as chairs etc. at the camp site.

W. R. Barrow
Wildlife Technician

R. Hicks
Field Assistant

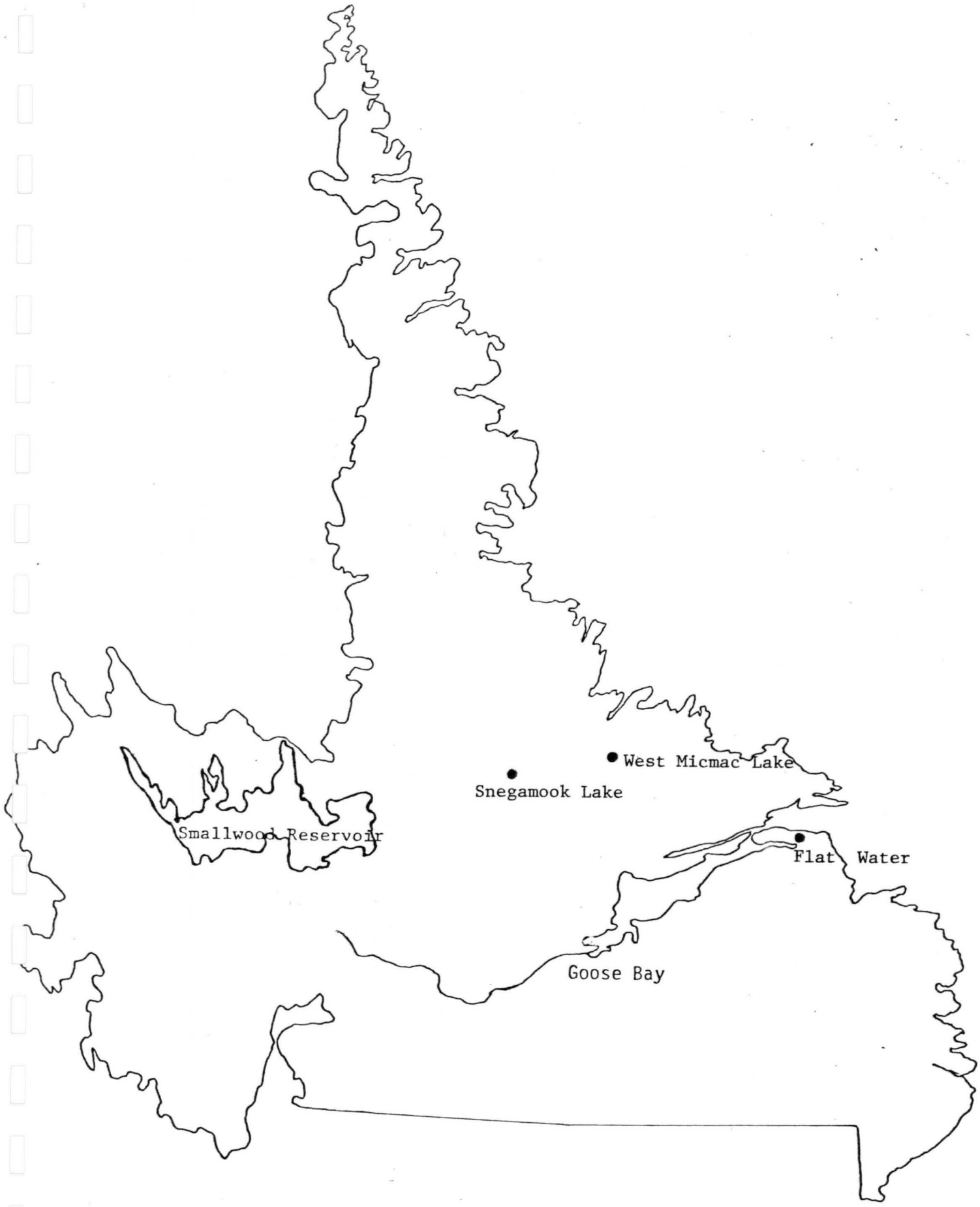


Figure 1. Dog banding locations Labrador 1982.

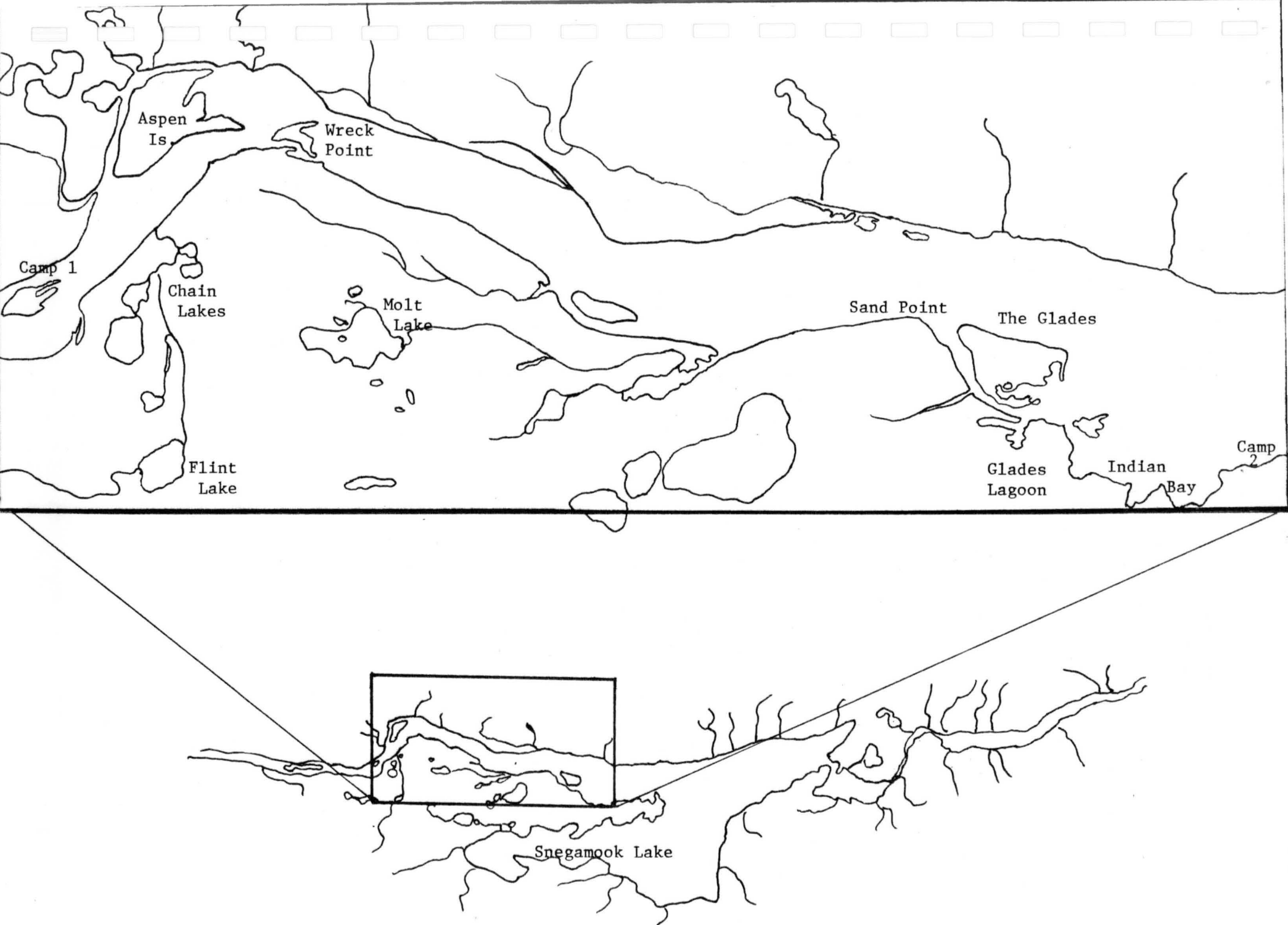


Figure 2. Snegamook Lake and enlargement of work area.

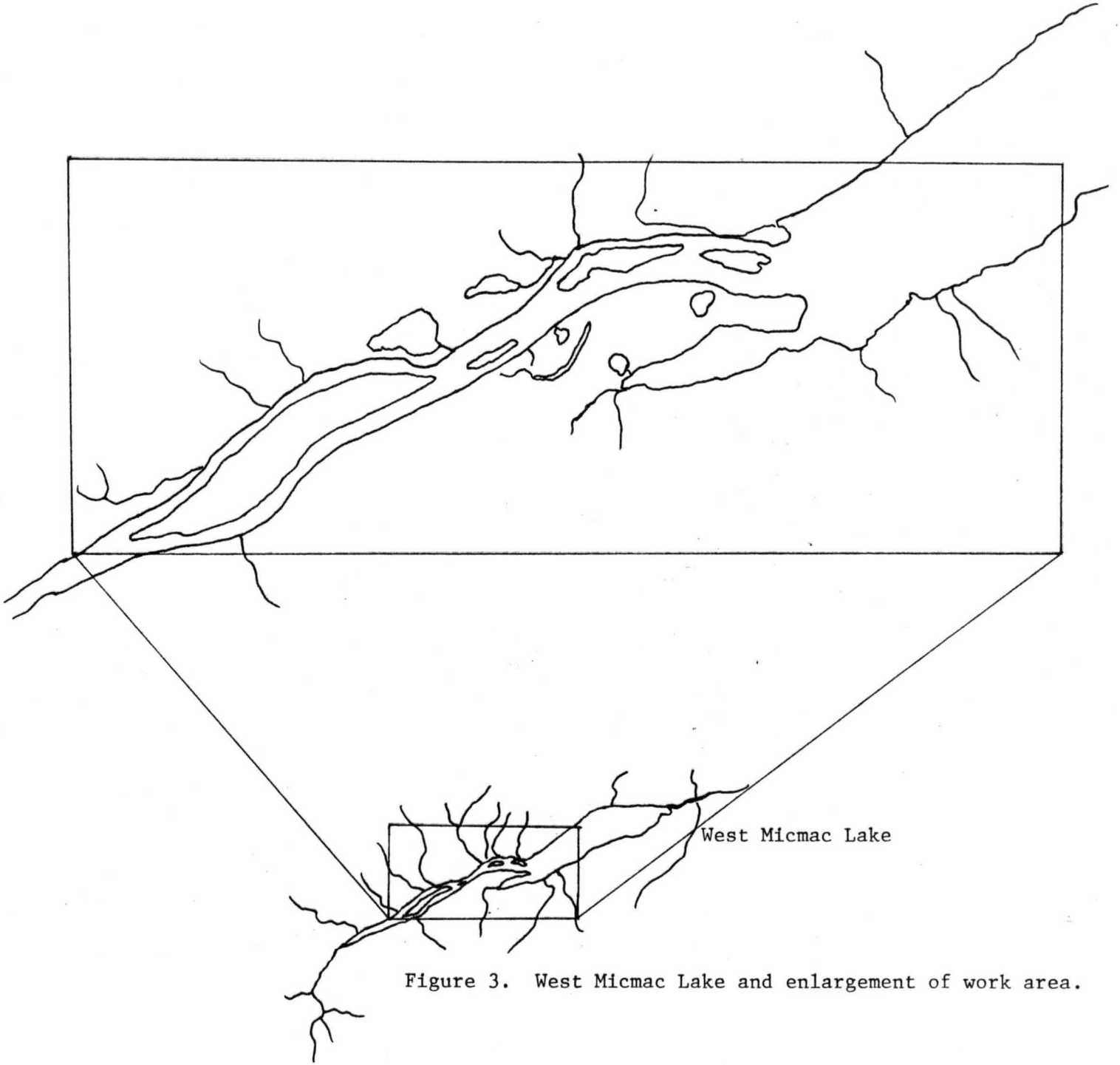


Figure 3. West Micmac Lake and enlargement of work area.

Figure 4. Flat Water and enlargement of work area.

Dog banding - Labrador

Dog banding - Labrador