

## COMMON LOON BREEDING IN OREGON AND WASHINGTON -- 1991 REPORT

Charlotte C. Corkran  
Northwest Ecological Research Institute  
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### INTRODUCTION

Common Loons (*Gavia immer*) nested in Washington, Oregon, and northern California until the 1950s, when they were extirpated, apparently by human disturbance, habitat alteration, pesticides, and entanglement in commercial fishing gear (Corkran, 1988). During the mid-1980s, there were reports that Common Loons were nesting at several sites in Washington and possibly at one site in Oregon. This study is an effort to help state and federal agencies investigate the present status of loons in Oregon and Washington. The project began in 1986, and has been funded by the Mt. Hood National Forest and by grants from the North American Loon Fund and the Loon Lake Loon Association.

The objectives of the study are 1) to determine whether Common Loons are attempting to nest again in Oregon, 2) to investigate the locations and frequency of nesting in Washington, 3) to identify locations or habitats important to loons for pair formation, migration stopovers, or possible future nesting, and 4) to develop recommendations for conservation and management of loons and their habitats in the Pacific Northwest.

### STUDY AREAS AND METHODS

Spring observations were made of Common Loons in the Bull Run Watershed, Mt. Hood National Forest, in the northern Oregon Cascades. During March, April and May, 14 visits were made, with observations made from the same points as in previous years.

During the summer, 2 trips were made into Washington to survey for nesting loons. In early July, 2 days were spent surveying by canoe on lakes southwest of Mt. Rainier, on the west slope of the Cascades. In early August, 4 days were spent surveying by canoe or car on lakes in the Colville Indian Reservation and on reservoirs of the Columbia River east of the Cascades. During the fall, telephone conversations were held with Washington Department of Wildlife staff and several individuals who have observed loons in Washington.

### RESULTS

Bull Run Watershed - Two loons in basic plumage were seen during March and the first half of April. They may have spent the winter in the watershed. Migrating loons in breeding plumage arrived about the first of April. Their numbers peaked about April 15 (9 loons were seen on that date), but one or 2 loons remained until late May. These sightings are consistent with the pattern seen in most years since 1986.

Only 3 observations were made of a pair of loons, and none was from the usual North Fork area of the Upper Reservoir. It appeared that a pair stopped briefly on the Lower Reservoir, and that another, rather tentative, pair was present for at least 5 days at the lower end of the Upper Reservoir. On most visits

during April and May, a single loon was seen in the North Fork area where in previous years both pair behavior and aggressive territorial defense have been observed. This year neither was seen in this area, although the loon was observed to cruise the perimeter of the territory on several visits. Other loons were not seen in or near the territory until May 4, when a second loon was seen fishing far up in the territory but out of sight of the resident loon. The second loon was very alert at all times, and left the territory by a cautious retreat to a point almost within view of the resident, and then an underwater exit until just outside the territory.

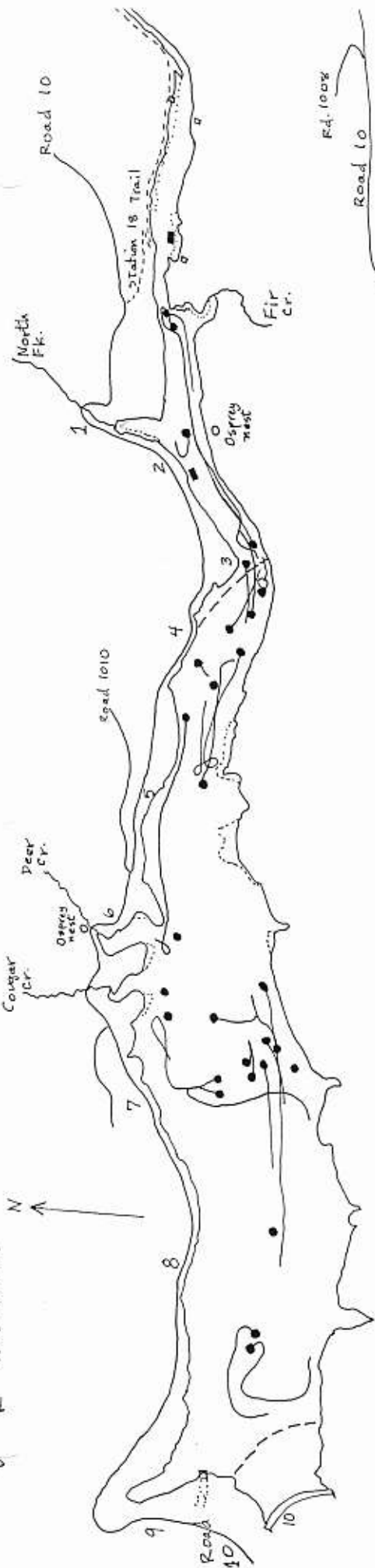
The most likely interpretation of the status of loon breeding in the Bull Run Watershed is as follows, based on very few reports until 1986 when regular monitoring began. Loons probably nested in 1978 or 1979, and possibly in earlier and later years. From 1984 through 1986, a pair of loons held the North Fork territory during spring and may have attempted nesting. In 1987 only the male returned, and unsuccessfully courted an immature loon. In 1988 a tentative pair held the territory (probably the same male). In 1989 and 1990 a pair (probably the same) returned to the territory but were inadvertently harassed by the Portland Water Bureau in 1989 and by logging on Forest Service land in 1990. In both years the pair was observed leaving the territory giving tremolo calls, and the territory was vacant for much of each spring. In 1991 the male returned with no mate and used the territory but was not seen directly interacting with any other loon. Nesting in the Watershed has never been confirmed.

Washington surveys - Between July 1 and August 14, parts or all of 9 lakes in Washington were surveyed (Figure 1). No new nest sites were located. Most of my surveys in 1991 were conducted too late in the year to confirm nesting or to determine unsuccessful nesting attempts. Communication with other loon watchers helped to confirm nesting in 1989 on one lake not previously acknowledged by the Washington Department of Wildlife. Appendix A lists lakes in Washington that were surveyed and/or from which I received reports in 1991, with a brief description and analysis of the known historic and recent use by loons. Data on the lakes is from Wolcott, 1973, Jewett, et al., 1953, personal observations, and reports from others.

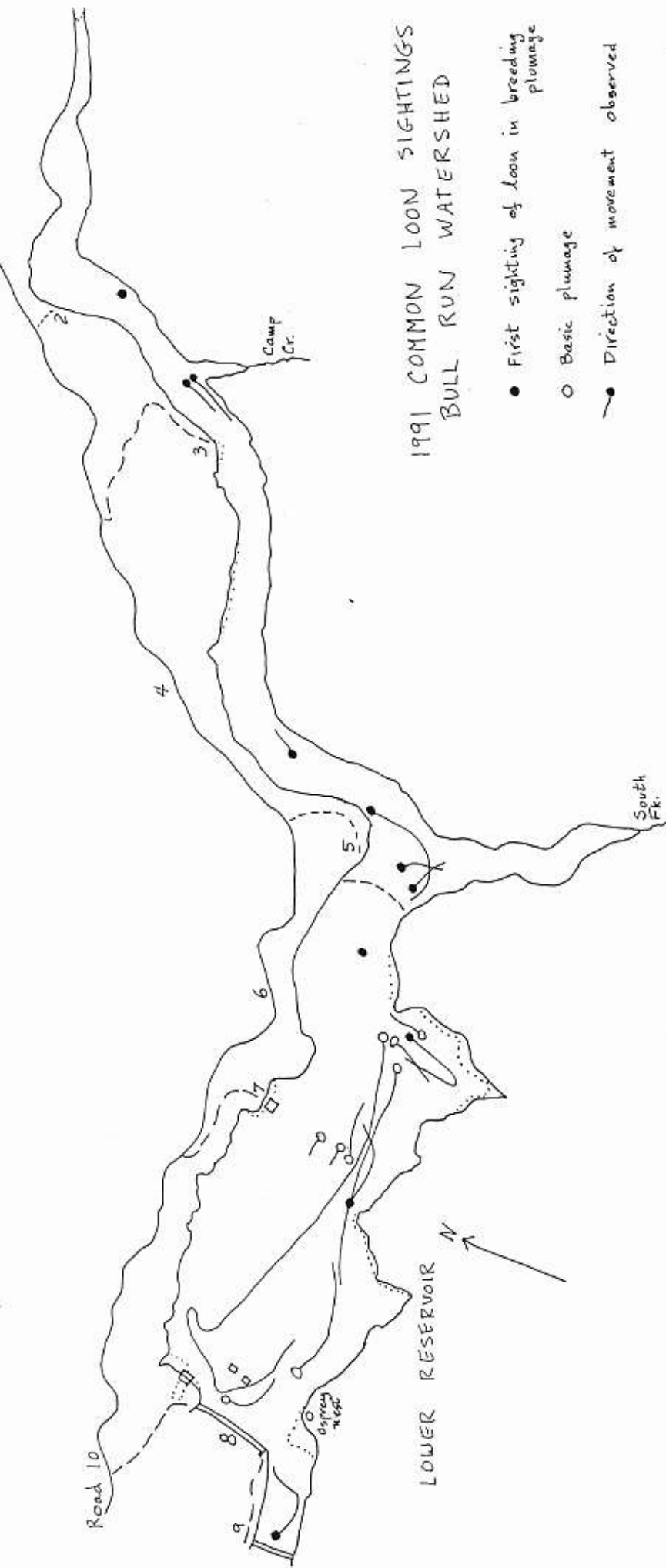
#### LITERATURE CITED OR USED

- Corkran, C. C. 1988. Status and potential for breeding of the Common Loon in the Pacific Northwest. In P. I. V. Strong, ed. Papers from the 1987 Conference on Common Loon Research and Management. N. Am. Loon Fund, Meredith, NH.
- Jewett, S. G., W. P. Taylor, W. T. Shaw, and J. W. Aldrich. 1953. Birds of Washington State. Univ. Wash Press, Spokane.
- McIntyre, J. W. 1988. The Common Loon: Spirit of Northern Lakes. University of Minnesota Press, Minneapolis.
- Wolcott, E. E. 1973. Lakes of Washington. Washington Department of Ecology, Water Supply Bulletin No. 14. Olympia, Washington.

U R RESERVOIR



1991 COMMON LOON SIGHTINGS  
BULL RUN WATERSHED



- First sighting of loon in breeding plumage
- Basic plumage
- ↖ Direction of movement observed



## APPENDIX A

### WEST SLOPE CENTRAL CASCADES

1. Kapowsin Lake - At the turn of the century loon nesting was confirmed and published in Jewett, et al., 1953. No loons were seen in early July of 1991, nor are there any known reports from recent years. The lake is 512 acres with a maximum depth of 58 feet (Wolcott, 1973). It is on private lands, apparently including commercial forest land, but has an unofficial boat landing area and receives considerable human recreational use for fishing and picnicing, mostly by local residents. The lake edge includes several protected bays, and the margin is shallow, with several well developed areas of emergent vegetation. The habitat appears still to be suitable for loon nesting and chick rearing. Human use did not appear to be excessive, and motor boats were being used only for fishing. Additional monitoring is probably needed.

2. Alder Lake - This is a large reservoir on the Nisqually River. There are no known reports of loons on the lake, and none was seen in early July, although we were unable to survey all parts of it. The reservoir is 2931 acres with a maximum depth of 280 feet. It is on mostly commercial forest and other private land, with some state land including a park and campground. Human use was fairly light, mostly fishing, with very localized heavy use near the campground. The lake has many open areas exposed to winds, but several protected bays also exist. The sections surveyed have a very steep margin with no emergent vegetation. An active Osprey nest was seen on a low snag in the water.

### OKANOGAN COUNTY

3. Spectacle Lake - The 315 acre lake is surrounded by dense emergent vegetation which could provide good chick rearing habitat. There are houses along one side and considerable fishing use. There is an unconfirmed report of a loon nest in 1989. A sighting of a loon in breeding plumage in July of 1991 was reported to us. This should be the highest priority for further surveys, and local loon watchers should be encouraged to monitor and report to the Washington Department of Wildlife.

4. Lost Lake - The 47 acre lake, even though busy with fishermen, campers, and swimmers, has abundant emergent vegetation along the south side in particular. Loons have nested here successfully every year since 1988. We received a report from July of 1991 of a pair with 2 large down young. Local loon watchers should be encouraged to keep on monitoring and reporting to the Washington Department of Wildlife.

### COLVILLE INDIAN RESERVATION

5. Duley Lake - One of the largest of a group of potholes, probably all somewhat alkaline, 53 acre Duley Lake probably receives some fishing use. Mostly it is used by cattle, which appeared to have grazed down the surrounding vegetation. Habitat did not appear to be suitable for loons. No loons were seen or have been reported. Ruddy Ducks were common.

6. Big Goose Lake - Large patches of tule and other marsh vegetation cover about half of the 181 acres. The maximum depth is



10 feet, which may be too shallow for loons. No loons were seen, and none has been reported. The marsh is rich with other wildlife, including 2 broods of Lesser Scaup, Blue-winged Teal, Mallard, Killdeer, and Spotted Sandpiper.

7. Owhi Lake - This 500 acre reservoir seems to be a favorite recreation spot for the reservation, with lots of camping and fishing. Although there are some nicely protected bays, the edges are mostly steep, the gentler parts being the most popular beach areas for kids. Little emergent vegetation occurs. We observed 2 adult loons in June of 1989, and 3 adult loons in August of 1991. About 15 Hooded Merganser, 6 Barrow's Goldeneye, 2 Lesser Scaup, a Red-necked Grebe and 12 Mallard were also seen at the lake. Early summer visits here should be the highest priority for further loon surveys.

8. Little Owhi Lake - The 39 acre lake, connected to Owhi by an extensive marsh and stream, appears to have excellent loon nesting habitat. Both island and partially submerged log nest sites exist, and pond lily patches as well as other types of aquatic vegetation provide an abundance of chick rearing habitat. We have seen no fish, but the popularity of the lake with fish-eating birds would indicate the probability that they exist. No loons were seen in either 1989 or 1991, but the loons seen at Owhi Lake probably use both lakes. Great Blue Herons were nesting in trees on the small island, and we estimated that there were 40 Barrow's Goldeneye, 30 Hooded Merganser, 20 Mallard, a Pied-billed Grebe, 2 Green-winged Teal, and 12 Coot, as well as hundreds of Western Painted Turtles (47 on one log), and a great diversity of other birds and mammals in the marsh, brush, and forest surrounding the lake. This should be the highest priority for early summer loon monitoring.

9. Buffalo Lake - The deeply indented outline of this 542 acre lake provides several protected nest sites, however the margin is steep in many places, and well developed emergent vegetation only occurs in one area. No loons were seen either in 1989 or in 1991. We did observe about 6 Red-necked Grebe, 10 Mallard, 4 Hooded Merganser, 15 Canada Goose, and several Lewis' Woodpeckers.

10/11. North and South Twin Lakes - Loon nesting has been confirmed since 1981. Despite having good areas of pond lily and other aquatic vegetation, heavy and changing recreational use of the 744 acre and 973 acre lakes may have been responsible for nesting being unsuccessful from 1987 to 1990. Reservation biologists have placed floating signs to keep fishermen away from the nest area. Reports from 1991 are that, although the nest on North Twin was abandoned, one chick was seen during the summer on South Twin, probably a result of the nest area protection measures.

#### COLUMBIA RIVER CHANNELS

12. Entiat Lake - The 9,860 acre reservoir was dammed in the early 1960s. Loon nesting was reported in 1986 but not confirmed. In 1989 nesting was reported near Daroga State Park and at another unknown site further downstream. The 1989 nesting near Daroga State Park was not confirmed until this year, when we persuaded WDW staff of the qualifications of one of the observers. In 1991 loon nesting was reported again from two sites, but was not confirmed at either. On August 14 we observed two adult loons (one just

beginning to molt) and a juvenal (in first year plumage) just south of Daroga State Park, and an immature (second or third year plumage) a few miles further south. The sighting was made too late in the year to confirm where the nesting occurred, since by that date the juvenal may have been able to fly from another area. Even though there is heavy recreational boat use at Daroga State Park and other public sites along this reservoir, there is localized good habitat, including small protected bays, some emergent vegetation, and extensive mats of milfoil or other aquatic vegetation which appear to limit access by boats. Local loon watchers should be encouraged to continue monitoring and to report to the Washington Department of Wildlife.

13. Rufous Woods Reservoir - The dam built in the mid-1950s created a 7,800 acre reservoir. Without a power boat, only brief glimpses from the highway were possible. No loons were seen. Little human use was noted, and many sections had fairly extensive emergent vegetation along the margins. A report of loons nesting in 1984 should make this a high priority for thorough surveying in the near future.

14. Banks Lake - The section of the Grand Coulee was dammed in the early 1950s, forming a 24,900 acre reservoir. An immature or possibly juvenile loon was seen in the fall of 1988, but nesting has not been reported. With only a canoe, we could survey only the most accessible portions near Steamboat Rock in 1991. No loons were seen. There are extensive tule beds around the margin which provide nesting sites for many Western Grebes, and could provide chick rearing habitat for loons. The lake edges, particularly the bays at the north end, should be surveyed with a large power boat.

SPECIES OBSERVED AT OWHI AND LITTLE OWHI LAKES

August 11, 1991

Charlotte C. Corkran

BIRDS

Common Loon  
Pied-billed Grebe  
Red-necked Grebe  
Great Blue Heron  
Green-winged Teal  
Mallard  
Lesser Scaup  
Barrow's Goldeneye  
Hooded Merganser  
Northern Harrier  
Red-tailed Hawk  
American Kestrel  
Ruffed Grouse  
American Coot  
Spotted Sandpiper  
Common Nighthawk  
Red-naped Sapsucker  
Downy Woodpecker  
Northern Flicker  
Pileated Woodpecker  
Western Wood-Pewee  
Dusky Flycatcher  
Cordilleran Flycatcher  
Eastern Kingbird  
Violet-green Swallow  
Gray Jay  
Common Raven  
Black-capped Chickadee  
Red-breasted Nuthatch  
Pygmy Nuthatch  
American Robin  
Cedar Waxwing  
Warbling Vireo  
Nashville Warbler  
Yellow Warbler  
Yellow-rumped Warbler  
Western Tanager  
Lark Sparrow  
Dark-eyed Junco  
Red-winged Blackbird  
Western Meadowlark  
Brewer's Blackbird  
Cassin's Finch  
American Goldfinch  
Evening Grosbeak

REPTILES

Western Painted Turtle

MAMMALS

Yellow-pine Chipmunk  
Douglas' Squirrel  
Coyote  
White-tailed Deer



## IDENTIFICATION OF JUVENILE COMMON LOON

Charlotte Corkran 1/92

This description compares the juvenal plumage of the Common Loon (*Gavia immer*) with its basic plumage. The juvenal plumage is the first feathers the chick grows after the downy stage. It retains these until early the next summer. The basic plumage includes immature (second or third year) loons yearround, as well as adult loons in winter.

Note: After the end of July it is not possible to confirm the nesting location from a sighting of a juvenile loon. Loon pairs with juvenals frequently move to nearby lakes using connecting rivers and streams, or even move short distances overland. As soon as the young can fly they can move long distances very quickly.

### JUVENAL PLUMAGE

- \*\* Color of upper parts is warm tannish-gray.
- \*\* Scalloped or scaled pattern on back and scapulars is often very distinct. Each scallop or scale is a small, light colored semi-circle.
  - \* Outer edge of these feathers has a broad band of pale tan.
  - \* Outer edge of these feathers is rounded.
- \*\* Bill may appear considerably shorter than the length of the head.

### IMMATURE / WINTER PLUMAGE

- \*\* Color of upper parts is cold steel-gray.
- \*\* Back and scapulars are solid gray or have dull and/or scattered short bars or small squares of slightly lighter gray.
  - \* Outer edge of these feathers is only slightly paler than the rest of the feather.
  - \* Outer edge of these feathers is squared off on immatures and especially on adults.
  - \* Winter adults may show a few black and white feathers from the breeding plumage.
- \*\* Bill may appear as long as the length of the head.

DRAFT

WASHINGTON LOON WATCHER REPORT

Please fill out the form as fully as possible, giving estimates where necessary, and leaving blanks where you do not have any information. Use one form for each lake. Please return form to:

Kelly McAllister  
Washington Department of Wildlife  
600 N. Capitol Way, GJ-11  
Olympia, WA 98504-0091

YOUR NAME: \_\_\_\_\_ YEAR: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

PHONE: \_\_\_\_\_

NAME OF LAKE: \_\_\_\_\_ COUNTY: \_\_\_\_\_

DATE LOONS WERE FIRST SEEN THIS YEAR: \_\_\_\_\_

HOW MANY ADULT LOONS DID YOU SEE? \_\_\_\_\_

HOW MANY IMMATURE LOONS DID YOU SEE? \_\_\_\_\_

WAS THERE A PAIR OF ADULT LOONS SEEN ON THE LAKE? \_\_\_\_\_

DATE PAIR WAS FIRST SEEN THIS YEAR: \_\_\_\_\_

DID YOU SEE A NEST? \_\_\_\_\_ DATE FIRST SEEN: \_\_\_\_\_

WAS NEST ON SHORE? \_\_\_\_\_ ISLAND? \_\_\_\_\_ LOG? \_\_\_\_\_ OTHER? \_\_\_\_\_

(IF OTHER, PLEASE DESCRIBE): \_\_\_\_\_

DID YOU SEE EGGS IN NEST? \_\_\_\_\_ HOW MANY? \_\_\_\_\_

DATE ADULT FIRST SEEN INCUBATING EGGS: \_\_\_\_\_

DID EGGS HATCH? \_\_\_\_\_ DATE HATCHED IF KNOWN: \_\_\_\_\_

IF EGGS DID NOT HATCH, DO YOU KNOW WHAT HAPPENED TO THEM AND WHEN?

DID YOU SEE LOON CHICKS? \_\_\_\_\_ HOW MANY? \_\_\_\_\_

DATE CHICKS FIRST SEEN? \_\_\_\_\_

DID BOTH CHICKS SURVIVE? \_\_\_\_\_

IF NOT, DO YOU KNOW WHAT HAPPENED TO EACH ONE AND WHEN? \_\_\_\_\_

DATE CHICKS FIRST FLEW, IF KNOWN: \_\_\_\_\_

LAST DATE CHICKS SEEN THIS YEAR: \_\_\_\_\_

LAST DATE LOON PAIR SEEN THIS YEAR: \_\_\_\_\_

LAST DATES OTHER LOONS SEEN THIS YEAR: \_\_\_\_\_

WOULD YOU BE WILLING TO PARTICIPATE NEXT YEAR? \_\_\_\_\_

Thank you for your assistance!

DRAFT