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SHORT COMMUNICATIONS

Status of a Population of Bald Eagles Wintering in Western Connecticut

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In a previous study (H.I. Russock, *Raptor Research* 13(4): 112-115, 1979) a population of 4 Bald Eagles (*Haliaeetus leucocephalus*) was observed on wintering grounds in western Connecticut during the winter of 1976-1977. The eagles congregated below a hydroelectric dam on the Housatonic River. The dam's generators kept the otherwise frozen river open and killed or injured large numbers of fish which the eagles preyed upon. This paper presents the results of subsequent observations made during the winter of 1982-1983 on the same population of eagles which grew to 17 individuals.

Eagles were observed in the vicinity of the Shepaug Hydroelectric Dam, Housatonic River, approximately 4.6 km north of Newtown, Connecticut. Above the dam, and created by it, is Lake Lillinoah with a surface area of 769 ha. Directly west, across Lake Lillinoah, is the Upper Paugessett State Forest extending for 3 km north along the western shore of the lake. On the south side of the river, below the dam, is a large privately owned wooded hillside where eagles congregated. North, across from the hillside, is a hydroelectric plant owned by Connecticut Light and Power Company.

Most observations were made from the top of the dam and from a canvas blind constructed on the south side of the river, approximately 25 m from a frequent perching area. Other observations were made from a road running

parallel to the north side of the river and from several locations northwest of the dam (when attempting to determine roosting sites). Observations were made with field binoculars (7x35) and a 600 mm photographic lens and were results dictated into a taperecorder or handwritten. A total of 178 h of observation were made between 8 December 1982 and 8 April 1983. Trips were made to the dam on 52 separate days, 34 of which resulted in sighting of eagles.

The first eagle observed was on 3 January 1983; 9 observation days in December did not result in any sightings. Eagles were last observed on 24 March 1983; during 6 observation days in late March and early April none were seen.

Due to unusually mild weather, the Housatonic River remained virtually free of ice during the entire winter. Therefore, the departure of eagles could not be correlated with the opening of the river in spring as it was during the winter of 1976-1977. It was not determined if the greater availability of open water elsewhere affected the number of eagles wintering in the vicinity of the Shepaug Dam. However, due to the abundance of fish at the dam, it is likely that all eagles wintering in the area frequented the dam.

Seventeen individuals were positively identified using plumage characteristics and other outstanding features;

10 were adults and 7 immature. Eight (4 adults, 4 immatures) were observed frequently from early January to early or mid-March. Two other immatures were observed between 6 and 24 February 1983. Seven others (5 adult, 2 immatures) were seen on 1 or 2 observation days each, between 13 January and 12 March 1983.

Night Roosts — Three night roosts were tentatively 2.5-7.5 km north and northwest of the Shepaug Dam. All 3 were located in undeveloped mixed hardwood forest. The first 2 sites were located by direct observation of eagles leaving or returning in early morning and early evening, respectively. The third was located with a police scanner by tracking a radio-tagged eagle.

Breeding grounds — The 17 eagles wintering in the vicinity of the Shepaug Dam can be divided into 2 groups, 8 observed throughout the winter and 9 observed over a period of 1 to 18 d. It is reasonable to assume that the latter group is made up of transient birds. Three of these have been traced to breeding areas in Maine. Two immatures observed only during February were identified by leg bands as hatch year birds from Maine. A third immature, observed on 1 d in February, had both leg bands and a backpack transmitter which identified it as coming from a nest in the Cobscook Bay area of the Main coast. Two others (1 adult, 1 immature), seen on 1 or 2 d each, also had leg bands, but could not be further traced.

There is no direct evidence of an active nest in the area. However, 7 of the 8 eagles observed throughout the winter could be divided into 2 groups which virtually always moved as separate units. One group consisted of 2 adults and 1 immature and the other group consisted of 2 adults and 2 immatures. This suggests that there were 2 family groups. The senior author observed a single adult

on 3 separate occasions during the first week of June 1983, approximately 7 km north of the Shepaug Dam.

Feeding — Eagles arrived at the dam area 5-15 min before sunrise; they remained perched until the hydroelectric plant started operation at 0700 when they began feeding on fish killed or injured by the plant's turbines. Feeding continued for 1-3 h after which the birds perched or soared over the hills on the south side of the river. Feeding often resumed in early afternoon before the birds returned to their roosts.

Eagles were observed making dives to the river to catch fish on 232 occasions, 170 (73%) of which were successful. Adults were successful on 103 (75.7%) of 136 attempts while immatures were successful on 67 (69.8%) of 96 attempts (NS, X^2 Test). Fish caught included trout (*Salvelinus* spp.), bass (*Micropterus* spp.), catfish (*Ictalurus* spp.), and shiner (*Notropis* spp.).

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Nest Defense by Northern Harriers Against the Coyote in Southwestern Idaho

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Predation on Northern Harrier (*Circus cyaneus*) by Striped Skunk (*Mephitis mephitis*), Badger (*Taxidea taxus*), foxes (*Fulpes* sp.) and Mink (*Mustella vison*) has previously been reported. (Craighead and Craighead 1956; Hamerstrom 1969; Watson 1977). Although Murie (1940) reported that Coyotes (*Canis latrans*) prey on the Short-eared Owl (*Asio flammeus*), an ecological equivalent of the Northern Harrier, we are not aware of reports of Coyote predation on Northern Harriers. Herein we report several Northern Harrier — Coyote interactions observed during 1981 in the Snake River Birds of Prey Study Area in southwestern Idaho.

On 29 March at 1020, T.C. observed a pair of nesting harriers perched in a small tree (*Crataegus* sp.) near a spring bordering the Snake River. Riparian habitat surrounded the spring for a distance of 15 m with senescent

reed (*Phragmites communis*) and stinging nettle (*Urtica* sp.) the predominant vegetation. Beyond the spring, big sagebrush (*Artemisia tridentata*) and June grass (*Bromus tectorus*) covered the nearby canyon side. Shortly, the female harrier flew from the tree followed by the male, and both began emitting a call usually associated with agnostic displays. The male then started diving repeatedly at the edge of the riparian growth. By the male's changing position it was obvious that the object of his dive was moving toward the center of the riparian vegetation. As the hawk completed a dive, a Coyote rose on its hind legs above the vegetation and snapped its jaws at it. The Coyote again attempted to grab the harrier, and then stopped with his back visible. It appeared that it was moving its head near the ground as if eating. The female harrier circled and called overhead while the male con-