

AN INCREASING WHITE-FACED IBIS POPULATION IN OREGON

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During the 19th century, there were periodic reports of White-faced Ibises (*Plegadis chihi*) in Oregon. Most of the records were from the Harney Basin in Harney Co. (Jobanek 1987). In 1908, W. L. Finley and H. T. Bohlman were the first to document the species' breeding in Oregon, recording a colony of 500 ibises on Malheur Lake in the Harney Basin (Finley 1908). Extreme drought during the 1930s severely reduced this colony, and no ibises at all nested in some years. In 1940 a small well-established colony was still active at Malheur Lake (Gabrielson and Jewett 1970). Despite periodic sightings of ibises in the Warner Basin and at Summer Lake, in Lake Co., Ryder (1967) reported that the only colony in Oregon was at Malheur Lake. During the 1960s and 1970s, the number of breeding pairs on Malheur Lake increased from 10 in 1963 to 190 in 1979 (Thompson et al. 1979).

Since 1980, the number of breeding pairs of ibises in Oregon has increased dramatically (Table 1). During this period, sightings of ibises have increased throughout Oregon (H. Nehls pers. comm.). This increase has coincided with above-average precipitation in the region and record high water levels in many of the closed lake-basin systems throughout the Intermountain West. Here we discuss recent increases in the population of ibises nesting in Harney Basin and the pioneering of White-faced Ibises to new areas in Oregon.

METHODS

The U.S. Fish and Wildlife Service has conducted annual colonial waterbird surveys on Malheur National Wildlife Refuge since 1966. Before 1978, birds were counted from the ground by observers in air-thrust boats. Since 1978, helicopters, fixed-wing airplanes, and ground visits have been used to census birds. Beginning in 1985, counts were conducted cooperatively with the Oregon Department of Fish and Wildlife, and the area covered was expanded to include most of southeast Oregon, with the greatest effort in the Harney Basin.

Figure 1 shows locations of the colonies we discuss.

HARNEY BASIN

Before 1982, ibises nested only at Malheur Lake (except in 1963 when a colony was active in a pond 3 km south of the lake). The Malheur Lake colony had increased to 650 nesting pairs in 1981. Heavy precipitation (208% of normal) preceding the 1982 nesting season raised the level of Malheur Lake and flooded the historic colony site, causing the ibises to shift to a new colony on private land

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Table 1 Locations and Sizes of White-faced Ibis Colonies in Oregon, 1980-1987

Year	Active colonies (number of pairs)	Total nesting pairs
1980	Malheur Lake (600)	600
1981	Malheur Lake (650)	650
1982	Lawen (900)	900
1983	Lawen (400), Vogler Marsh (20)	420
1984	Squarewell (750), Vogler Marsh (130), Warbler Pond (30)	910
1985	Squarewell (500) Vogler Marsh (450) Red-S (230), Sodhouse Bay (110), Knox Pond (120)	1410
1986	Squarewell (1600), Knox Pond (420) Sodhouse Bay (70), Silver Lake, Harney Co. (5)	2095
1987	Knox Pond (1200), Wright's Pond (350), Lava Swamp (125), Island Ranch (800), Greaser Reservoir (40), Anderson Lake (20), Silver Lake, Lake Co. (60)	2595

ca. 6 km southwest of Lawen, along the north edge of Malheur Lake. The number of nesting ibis increased in this Lawen colony to record levels in 1982.

In 1983, precipitation was 288% of normal in the Harney Basin, raising Malheur Lake 1 meter and reducing the amount of emergent vegetation available for nesting in the Lawen colony. Fewer ibises nested in 1983, and a new colony developed ca. 19 km southeast of Burns in Vogler Marsh.

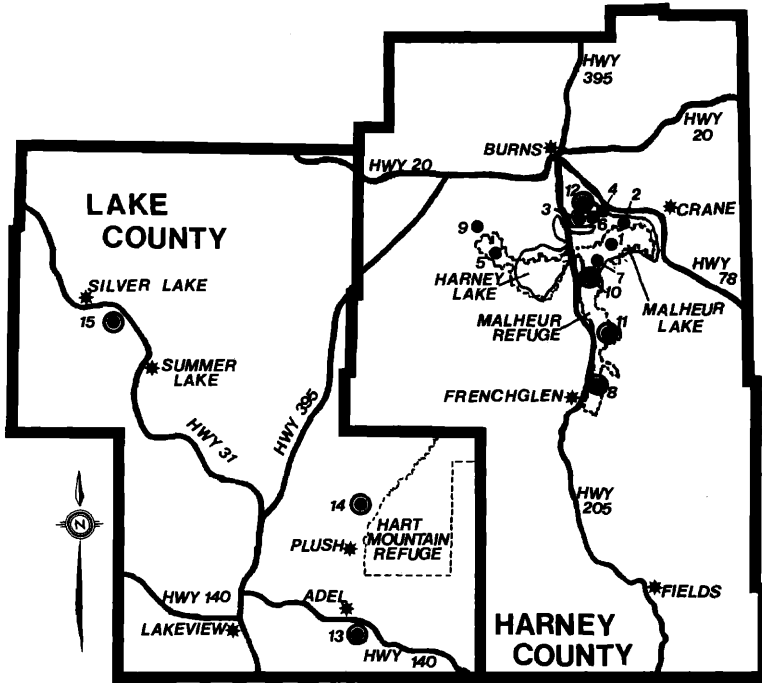
Precipitation in the Harney Basin in 1984 was 287% of normal, causing Malheur Lake to rise another 1.2 m. The Lawen colony was inundated and abandoned, while the Vogler Marsh colony grew. A large new colony developed at Squarewell (ca. 8 km west of Lawen) on the Silvies River. A small colony at Warbler Pond in the northwest portion of the refuge was abandoned because water levels dropped rapidly during the nesting period.

In 1985, precipitation was near normal (117%), and Malheur Lake was relatively stable during the nesting period. Numbers of ibises in the Vogler Marsh and Squarewell colonies increased, and three new colonies appeared. One was ca. 1 km northeast of the Vogler Marsh colony in the Red-S area, another developed at Sodhouse Bay, in Malheur Lake near the refuge headquarters, and the third developed at Knox Pond on the refuge (ca. 8 km north-east of Frenchglen).

Precipitation was slightly above normal in 1986 (147%), and four ibis colonies were active, including Knox Pond, Squarewell, Sodhouse Bay, and a small new colony at Silver Lake, Harney Co. (ca. 39 km southwest of Burns). Nesting ibis pairs in the Knox Pond and Squarewell colonies increased, while the Sodhouse Bay colony decreased, probably because of loss of emergent vegetation due to continued high lake levels.

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During 1987, because precipitation was slightly below normal, Malheur Lake declined ca. 0.8 m. Consequently, the large Squarewell and the smaller Sodhouse Bay and Silver Lake colonies were dry and not used by ibises. Two new colonies appeared on the Blitzen Valley at Wright's Pond (ca. 3 km southwest of refuge headquarters) and at Lava Swamp (ca. 13 km west of Diamond), and another large colony developed on a pond on the Island Ranch (ca. 10 km west of Lawen).



● WHITE-FACED IBIS COLONIES

● WHITE-FACED IBIS COLONIES ACTIVE IN 1987

COLONY NAMES:

- | | |
|-----------------|-----------------------------|
| 1. MALHEUR LAKE | 9. SILVER LAKE (HARNEY CO.) |
| 2. LAWEN | 10. WRIGHT'S POND |
| 3. VOGLER MARSH | 11. LAVA SWAMP |
| 4. SQUAREWELL | 12. ISLAND RANCH |
| 5. WARBLER POND | 13. GREASER RESERVOIR |
| 6. RED-S | 14. ANDERSON LAKE |
| 7. SODHOUSE BAY | 15. SILVER LAKE (LAKE CO.) |
| 8. KNOX POND | |



Figure 1. White-faced Ibis colonies in Oregon, 1980-1987.

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OTHER OREGON LOCATIONS

Outside the Harney Basin, in Lake Co., three other White-faced Ibis colonies were located in 1987. Stern found two colonies within the Warner Basin, one 4 km west of Greaser Reservoir, the other on the west edge of Anderson Lake. Carey found a third colony at Silver Lake in northwest Lake Co. Both Anderson and Silver Lake colonies were dry before the wet cycle which began in 1982, and ibis colonies at these two sites could have been established only during this period of high water.

CONCLUSION

It appears that nesting populations of the White-faced Ibis in Oregon have increased faster than can be explained by recruitment from the local population. We believe that the increase was partially due to displacement of ibises from nesting areas outside Oregon. Flooding of the marshes of the Great Salt Lake in Utah from 1982 through 1985 greatly reduced nesting habitat in that area, reducing the nesting population by 80% (D. Paul pers. comm.). We suspect the increase in Oregon may be due, in part, to the relocation of birds from Utah.

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