SHORT COMMUNICATIONS

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REDISCOVERY AND STATUS OF A DISJUNCT POPULATION OF BREEDING YELLOW RAILS IN SOUTHERN OREGON[1]

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Yellow Rails (*Coturnicops noveboracensis*) breed in shallow wetlands throughout the north-central portions of the interior United States and adjacent areas in southern Canada (AOU 1983). Additionally, there are historic nest records for Yellow Rails from Mono County in eastern California in 1922, 1939, 1947 and 1950 (Grinnell and Miller 1944, McCaskie et al. 1980), and two nest records from Klamath County in southern Oregon, one each at Aspen Lake and Shoalwater Bay in 1926 (Griffee 1944, Contreras 1993). Between 1950–1980, Yellow Rails were not recorded at historic breeding locations in California or Oregon, and it was generally agreed that breeding populations of this species had been extirpated from the western United States (AOU 1983, Roberson 1980).

On 19–20 June 1982, however, Yellow Rails were heard at the Fort Klamath Historic Monument in Klamath County, Oregon (Rogers 1982), and between 1982–1988, there were several reports each year by bird watchers during May, June and July in the surrounding Wood River Valley (WRV), Klamath County, Oregon (Gordon 1984, Summers 1985, McGie 1988). These repeated detections raised questions about the persistence of a breeding population in Oregon. Our objective was to determine the distribution, abundance, and breeding status of Yellow Rails in south-central Oregon.

METHODS

Based on discussions with birders and a review of recent literature, we compiled a list of seven sites where Yellow Rails had been heard in the WRV in Klamath County, Oregon since 1982. We found additional sites with suitable habitat by searching the WRV during daylight. In 1988, we conducted systematic surveys along all major roads in the WRV north of Agency Lake, stopping along roadsides and calling for rails every 0.5 km. In 1989, we expanded the scope of the study to include additional wetland sites in Klamath, Lake, Deschutes, and Jackson Counties. In 1991, we visited all sites which had rails in 1988 and 1989, resurveyed other areas with potential rail habitat, and conducted inventories at Klamath Marsh National Wildlife Refuge (NWR), a large wetland that was not examined previously. In 1992, we monitored calling rails through the breeding season at sites of known occurrence.

We conducted preliminary field work 4–13 June 1988, and more extensive surveys 18 May–30 June 1989, 1 May–17 July 1991, and 30 April–10 July 1992, a time coinciding with the peak breeding season for Yellow Rails. We searched for rails between 22:00 and 04:00 hr. At each site or calling station, we played a tape with a 60 sec series of Yellow Rail calls, or used two small stones, hitting them against each other to imitate this rail call (Bookout and Stenzel 1987). We played the tape or banged rocks together several times at each stop. At sites with more than one rail calling, we traversed the area, thus delineating each breeding territory, deriving a count based on the number of calling individuals.

RESULTS

Distribution and abundance. During preliminary inventories in 1988, we detected 29 Yellow Rails at six sites in the WRV at or near sites where Yellow Rails had been heard by birders between 1982–1987. In 1989, we detected 28 Yellow Rails at 10 WRV sites, one at Odessa Creek along the west side of Upper Klamath Lake near the WRV, and two at Sycan Marsh, Lake County. In 1991, we heard 24 Yellow Rails at seven WRV sites, two rails at Sycan Marsh, and discovered a new concentration of Yellow Rails at Klamath Marsh NWR where we heard 42 rails at nine sites within the refuge. Klamath Marsh NWR is located approximately halfway between the WRV and Sycan Marsh (Fig. 1). In 1991, we also heard two rails at Camas Prairie in Lake County. Camas Prairie at latitude 45°12′ longitude 123°50′ demarks the easternmost occurrence of Yellow Rails in Oregon. Unlike all other sites with rails in Oregon, Camas Prairie is in the closed drainage systems of the northern Great Basin and is outside the Upper Klamath Lake watershed. Overall, we located calling Yellow Rails at 26 sites in Klamath County,

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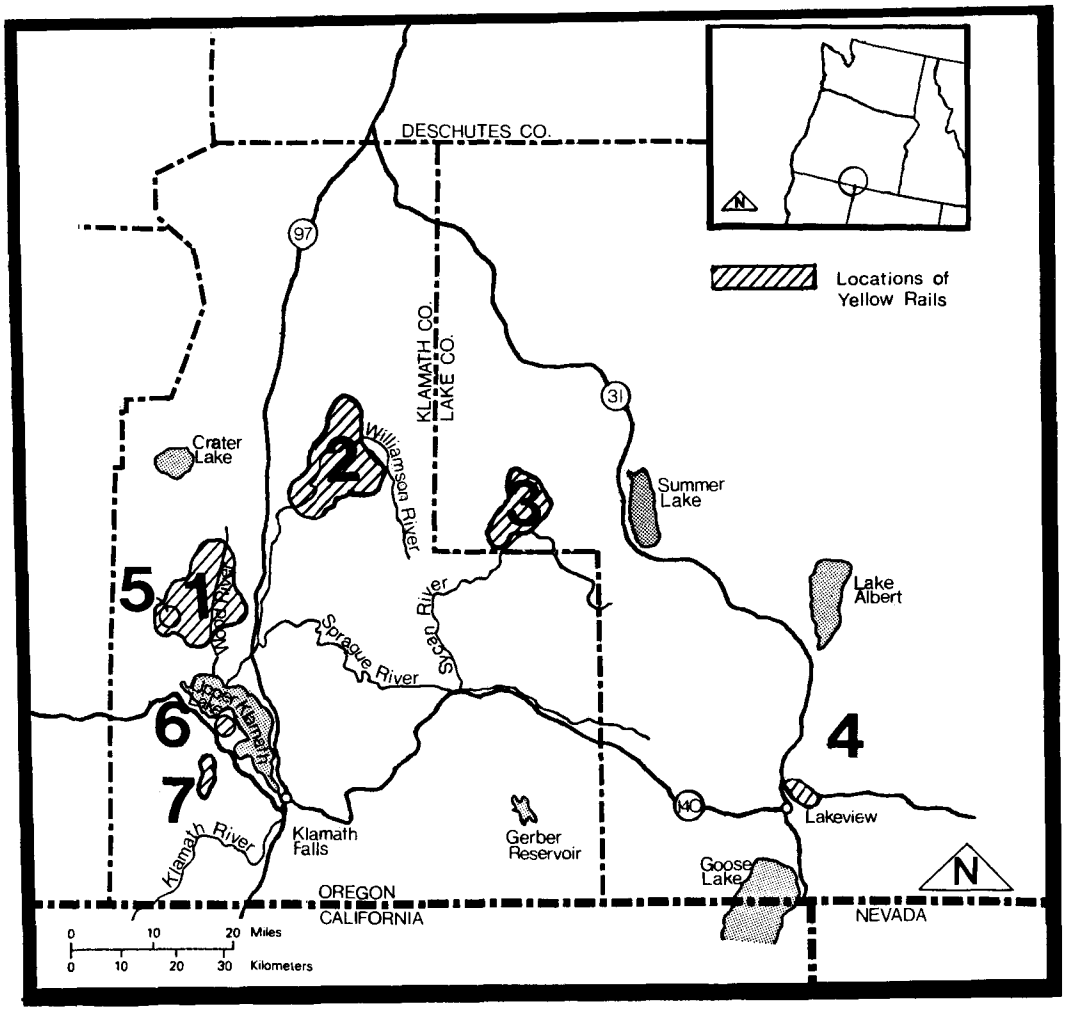

FIGURE 1. Location of vocalizing Yellow Rails during the breeding season in Oregon in 1988, 1989, 1991, 1992 (1 = Wood River Valley, 2 = Klamath Marsh NWR, 3 = Sycan Marsh, 4 = Camas Prairie, 5 = Jack Spring, 6 = Odessa Creek, near Shoalwater Bay, 7 = Aspen Lake).

and at two sites in Lake County (Table 1). Despite repeated search efforts, no rails were heard at Aspen Lake or Shoalwater Bay, the location of the 1926 nest records. We also surveyed seventy other wetland sites in adjacent portions of Klamath, Lake, Jackson, and Deschutes Counties, but heard no rails. These sites are listed in two unpublished reports on file with the Oregon Department of Fish and Wildlife Nongame Program (Portland, OR 97207).

In 1992, we detected 65 rails at 12 sites at Klamath Marsh NWR and 21 rails at seven sites in the WRV. None were heard at the two Lake County sites.

The largest concentrations of Yellow Rails occurred in the wetlands and freshwater springs associated with Fourmile and Sevenmile Creeks in the western portion of the WRV and at two sites within Klamath Marsh NWR (Table 1). Several sites (Jack Spring, Dixon Meadows, Savannah Hunt Club, Old Marsh) had 11–23 calling rails, but most sites had fewer, often less than five calling rails.

Evidence of breeding. On 30 May 1989, we discovered five recently depredated Yellow Rail eggs at the base of a willow tree (*Salix* sp.) in a shallowly flooded meadow east of Jack Spring near Fourmile Creek (Fig. 1). The eggs were a buffy, light tan color, with reddish dots in the shape of a wreath around the large end. All the eggs had been pecked out by an avian predator and only one egg was measurable (29.6 × 20.4 mm). These matched descriptions for eggs of the Yellow Rail (Harrison 1978), and have been deposited in the museum collection at the Department of Fisheries and Wildlife, Oregon State University. There were approximately 25 covert and breast feathers around the eggs. The feathers were dark in the center with a yellowish fringe and a

TABLE 1. Yellow Rail locations in southcentral Oregon, 1988, 1989, 1991, 1992.

Site name	Highest count of calling Yellow Rails[a]			
	1988	1989	1991	1992
Klamath County				
Wood River Valley				
1. Jack Spring	1	11[b]	7[b]	7
2. Mare's Egg Spring	1	1[b]	2[b]	2
3. Sevenmile Rd.	—	2	0	1
4. Sevenmile Canal N.	—	2	4[b]	1
5. Sevenmile Canal S.	—	2	3[b]	5
6. Dixon Road	14	6[b]	5[b]	5[b]
7. Crooked Creek	5	3[b]	0	0
8. Wood River Picnic Area	2	0	0	0
9. Fourmile Creek	6	3[b]	0	—
10. Fourmile Canal W.	—	4[b]	2[b]	—
11. Fourmile Canal E.	—	4	1	—
Odessa Creek	—	1	0	0
Klamath Marsh NWR				
1. Silver Lake Hwy North	—	—	2[b]	3[b]
2. Silver Lake Hwy South	—	—	19[b]	23[b]
3. Savannah Hunt Club	—	—	4[b]	13[b]
4. Military Crossing North	—	—	1[b]	2
5. Military Crossing South	—	—	1	0
6. Summers Ranch North	—	—	0	1
7. Summers Ranch West	—	—	3	0
8. Silver Lake Hwy West	—	—	2[b]	3
9. Mitchell Field West	—	—	0	2
10. Mitchell Field East	—	—	0	1
11. Nelson Field	—	—	0	1
12. Squaw Point East	—	—	3[b]	8[b]
13. Sagebrush Point West	—	—	7[b]	3
14. Squaw Point West	—	—	0	5
Lake County				
1. Sycan Marsh	—	2[b]	2[b]	0
2. Camas Prairie	—	0	2	0
Total	29	41	70	86

[a] Highest count means the single highest count of rails at the site throughout the breeding season.
[b] Probable breeding locale based on presence of calling Yellow Rails for at least one month throughout the breeding season.

light horizontal white streak, matching descriptions for Yellow Rails. In the hollowed base of the willow tree was a small nest bowl made of fine-textured graminoid stems. No egg chips or rail feathers were found in the nest bowl. Previously, we had heard up to four rails calling within 100 m of where the eggs were found, and a total of 11 rails within a one km radius of this site.

In 1989, 1991 and 1992, there were 15 sites where rails were heard repeatedly for at least a one month period during the breeding season from mid-May through late June, and 9 of these sites were active throughout the breeding season during at least two different years (Table 1). We refer to these 15 sites as probable breeding locales.

Habitat description. All sites where Yellow Rails persisted through the breeding season were wet montane meadows, 1,266–1,524 m in elevation, located near a cold water spring, seep, a flowing creek or in the floodplain of a river. Soils in the meadows were supersaturated and poorly drained. Typically, the vegetation was characterized by one of three broad-leafed sedge associations (*Carex simulata, C. vesicaria, C. rostrata*) (Kovalchik 1987). Coniferous forests bordered all meadows and were characterized by lodgepole pine (*Pinus contorta*) on poorly drained sites or by ponderosa pine (*P. ponderosa*), grading into white fir (*Abies concolor*), and quaking aspen (*Populus tremuloides*) on well-drained sites. Water depth in the meadows ranged from 2–30 cm. At Jack Springs, the rail eggs were found under a willow at the terminus of a narrow strip of willows protruding into the meadow. The immediately surrounding vegetation included *Poa pratensis, Ranunculus* sp., and *Alopecurus pratensis* in 2–10 cm of water, grading into a wetter meadow characterized by *C. simulata,* and *C. rostrata.* Other species found here included *C. vesicaria, Eleocharis palustris, Potomogeton* sp., *Pedicularis groenlandica, Montia* sp., and *Menyanthes trifoliata.*

Land ownership. In the WRV, Yellow Rail sites occurred primarily on private lands, except for portions

of the Jack Spring and Mares Egg Spring sites which are both partially on lands managed by the Winema National Forest. At Klamath Marsh NWR, most sites are on the refuge, or are inholdings within the refuge, or are immediately adjacent to the refuge such that the refuge's management activities (i.e., water control) fundamentally govern management of all sites with rails. The two sites in Lake County are privately owned. Overall, 12 of the 28 known locations for Yellow Rails and seven of the 15 sites classified as probable breeding locales occur on lands under public ownership. These sites on public lands accounted for 46 of 70, and 59 of 86 rail detections in 1991 and 1992, respectfully.

DISCUSSION

The discovery of five Yellow Rail eggs at Jack Spring provides the first documentation of Yellow Rails breeding in the western United States since 1950, and only the third confirmed breeding record for Yellow Rails in Oregon. This, coupled with the presence of Yellow Rails at 14 other probable breeding sites throughout the 1989, 1991, and 1992 nesting seasons, as well as the occurrence of rails throughout the breeding season at nine of these probable breeding locales in at least two different years, argues that a small, disjunct breeding population of Yellow Rails persists in south-central Oregon. We suspect that the secretive, nocturnal habits of Yellow Rails and the presence of relatively few individuals has allowed this breeding population to remain overlooked. The detection of Yellow Rails in 1980 and 1985 near historic breeding sites in eastern California (Gaines 1988) indicates that rail populations may persist there also.

The loss of Yellow Rail habitat due to conversion of wetlands to more intensive agricultural practices is the primary threat to this species in Oregon. Over 85% of the native wetlands in the Upper Klamath Basin have been lost since 1900 (Bottorff 1989). That this threat continues today is evidenced by the absence of rails at the Fort Klamath Historic Monument. This is the site where rails were first rediscovered in Oregon in 1982, and heard annually through 1985, until it was drained. Similarly, the absence of rails at the Crooked Creek and Fourmile Creek sites in 1991 and 1992 after probably supporting breeding populations in 1988 and 1989 is attributable to deepening of ditches and draining the habitat prior to spring 1991. Conservation actions are needed to protect potential breeding habitats.

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