

Bluebirds, University Ridge GC 1998



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Introduction.

This study was initiated to evaluate the ease of establishing bluebirds on a golf course. University Ridge, Verona, WI was chosen.

Summary.

University Ridge is a 225 acre, 18-hole public golf course opened in 1991. Part of the course is wooded, and is not bluebird habitat. Part of the course is built on farm land with remnants of field, fence rows, specimen trees and wood lot edges - excellent bluebird habitat. Establishment and management of a public golf course bluebird trail is reviewed. Success of attracting bluebirds in areas off the golf course, wrens, and a new design nest box is also discussed.

In 1997, there was only one bluebird nest in nest boxes placed at University Ridge. Houses were placed as would be done by most first-time trail establishers. An "easy to build" nest box pattern was selected. Forty-two nest boxes were placed in late May on random fence posts and trees with little consideration of habitat needs.

Boxes were often less than 100 yards apart, and of a design that discourages bluebird nesting but encourages tree swallow nesting. Nesting activity was not monitored.

In 1998, by adapting guidelines of bluebird re-establishment societies, the number of bluebird nests at the Ridge increased to twelve. Houses were rebuilt (Hill Lake to Herman Olson pattern), put out earlier in the year, and moved to better bluebird habitat. Nesting activity was monitored seven times during the summer.

Bluebird societies.

There are two in Wisconsin. A national group, the North American Bluebird Society is in Darlington. Vice president Carol McDaniel et. al. spoke at the Wisconsin Golf Course Superintendents April meeting at Abbey Springs. For more information on this organization write to Carol at 14593 State Highway 23, Darlington, WI 53530-9503.

The Wisconsin society is The Bluebird Restoration Association of Wisconsin, PO Box 207, Phillips,

WI 54555-0207.

Individual annual membership in either group is less than \$10. Members receive information, and golf courses can gain introduction to local bluebirders (folks with time and interest, but no bluebird habitat) to establish and monitor a trail on their golf course. A carpenter, Tim Morgan, 304 St. Rose Road, Cuba City WI, 53807 builds Peterson nest boxes available to golf course superintendents for \$12.50.

Nest boxes.

In 1997 lumber was salvaged from shipping crates to build 42 Hill Lake nest boxes. Bluebird society nest monitoring has shown these boxes are too deep for bluebirds preferred nesting and, in fact, this nest box preferentially selects tree swallows who prefer deep nest boxes. In 1998 all nest boxes were converted to the Herman Olson plan by cutting six inches from the bottom of each. One nest of bluebirds was lost to high temperature because ventilation holes were inadvertently not drilled when the nest box was rebuilt.



Gilbertson nest box with Vern's Clydesdale mare, Doll.



Bluebirds prefer a nest box that is not as deep as the Hill Lake. The wooden fence post does not exclude predators.

All houses were mounted on steel fence posts. Snakes can climb steel fence posts and two bluebird nests were lost to predatory snakes. Before next nesting season, a pipe PVC sleeve will be placed over all posts.

Nest box placement.

Bluebird Restoration Association of Wisconsin, Inc., Information Packet has Guidelines for box

placement. At University Ridge key points followed are: at least 300' between nest boxes, avoid wren habitat such as dense brush, have nearby trees that provide perches for hunting adults, and face the nest box toward cover that will hide young birds when they leave the nest.

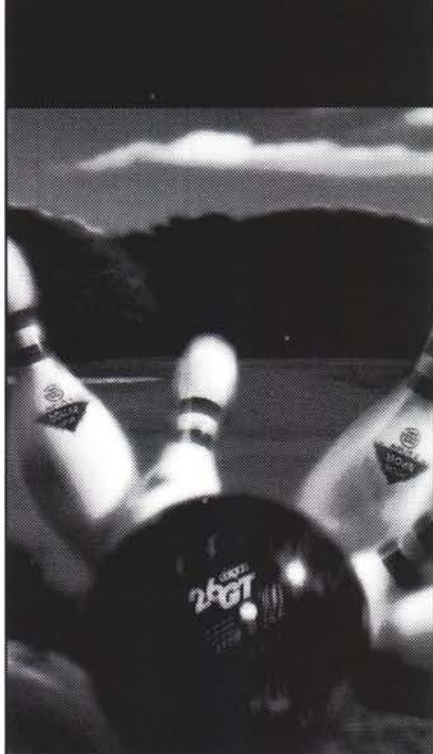
Additional guidelines applicable to golf courses: University Ridge Superintendent Jeff Parks says, "Don't drive a post through an irri-

Four species of native birds nested: bluebirds (12), chickadee (4), tree swallow (10), and wren (22). Two English sparrow nests were destroyed.

For forty-two boxes nine had no nests, 14 had one nest, and 19 had two nests during the season. Boxes that attracted two nests of wrens or had no nests will be moved before March 15, 1999.

The pesticide issue.

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date	bluebird	chickadee	wren	tree swallow
4/28	4	2		
5/14	1	1	2	7
5/28	2	1	5	3
6/17	1		3	
7/1	3		2	
7/15			8	
7/30	1		2	

gation line, and we are not going to mow around a bird house." For ease of maintenance/monitoring and for golfer probability of seeing bluebirds, most boxes are within a few yards of cart paths; do not place nest boxes close to greens and tees (5% of the area of a golf course and 90% of pesticide use). Nest boxes should be in place and cleaned by March 15, and remove early season nests to encourage a second nest in the same nest box. Keep a house in the maintenance shed to put up if you mow a new area or if tree swallows evict bluebirds when an early season bluebird nest fledges.

Nesting data, recorded when a nest was built and eggs laid.

Forty-two nest boxes were opened every 14 days through the nesting season. The time required to monitor all houses when traveling by cart was 1 1/2 hours.

There is an anecdotal view that bluebirds exist only in the purest of environments, and that they are more susceptible to pesticide bioaccumulation than other wildlife. At the Ridge, most observed bluebird insect feeding was in the no pesticide roughs, and occasionally on fairways when insects ventured in from the rough. Swallows that feed on insects disturbed by mowers should be better indicators of bioaccumulation.

Bluebird nesting biology.

Adult male bluebirds return to southern Wisconsin the middle of March. George Gladden wrote, "To be sure, the bluebird's migratory instinct occasionally gets the better of his meteorological discretion, so that his greeting to his northern breeding grounds is sometimes a howling north-easter, bringing snow and freezing temperatures which drive him back to the south-



Herman Olson nest boxes that had bluebird nests at University Ridge in 1998. Even with activity on the cart path and at the club house these two boxes fledged three nests of bluebirds.

land, or not infrequently cost him his life. In 1875 thousands of bluebirds perished in storms and bitter cold which lasted a week or more; their frozen bodies in barns and other outhouses where the poor things had vainly sought shelter; in woods and even along roadsides. In the localities affected, they were almost exterminated."

The first brood of young will leave the nest around the end of April. Then the adult pair, with the assistance of the first brood, will nest again and raise a second brood. Younger adults nest later in the year and raise one brood. Wrens and tree swallows compete for nest sites at this time, and bluebirds can be evicted by these more aggressive species.

After nesting, family units stay together, or they may group together with other family units to form small flocks. These groups can be seen through November.

Gilbertson house, probability of attracting nesting bluebirds, and wrens.

Bluebird Restoration Association of Wisconsin, Inc. Information Packet has Gilbertson nest box plans, made from four inch PVC and mounted on 1/2" electrical conduit. Advantages are a comparatively low cost of \$8.00 mounted, easy to move,

predator proof, and attractive to nesting birds.

The US Fish and Wildlife Service's Breeding Bird Surveys, conducted since 1966, estimate that the population of eastern bluebirds has increased 103 percent over the past 31 years. To see if some of this increase could be enticed to nest, Gilbertson houses were placed at four locations in Dane and Iowa Counties. **Vern's horse pasture.** Two boxes were placed March 15. A pair of bluebirds nested in April and again in June. **Jim's deer hunting farm.** Four boxes were placed March 15. One pair of bluebirds nested in June - presumably this was an adult pair raising a second brood because juveniles were bringing food to the nest. **Archery club.** One box was put up in May. Two weeks later bluebirds had built a nest and laid eggs. Presumably this was an adult pair raising a second brood because juveniles were bringing food to the nest. **Emmett's vegetable garden.** Three houses were placed on March 15. Two pair of bluebirds nested in April. Tree swallows moved into both boxes as soon as the first bluebirds fledged. One pair of bluebirds raised a second brood in a house moved into the area, and since the second pair did not have a nest site they left the area.

Wrens are abundant at University Ridge. Gilbertson houses were placed in wren habitat 1). to create decibels from bird song (the song of this bird always enters the debate when noise ordinances are considered) and, 2). so wrens will nest in the brush and not in nearby bluebird houses. Three houses were placed in dense cover at the maintenance facility. Each house raised two broods of wrens, but song frequency or decibel level was not measured.

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