

Importance of Nesting/Winter Cover to Upland Game Birds

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Gray partridges take advantage of a skimpy piece of winter cover.

Most of us think of wild places as areas of escape when the pressures of a hectic lifestyle become too much. Yet these wild places support a variety of creatures which depend on these environments for survival. A pheasant, for example, must find food, water, nesting cover, and shelter from Wyoming's often bitter winter weather to survive. A lack in any one of these components can result in death, regardless of the abundance of other components.

In most areas of Wyoming that support upland game bird populations, water and food supplies are not limiting. That is, these two components are available in quantities that do not limit game bird population sizes. More commonly, proper



Wyoming supports an unusual variety of native and introduced game birds. Clockwise from top: chukar partridge, ring-necked pheasant, ruffed grouse, and sage grouse. Each of these species has its own habitat preferences, but they all share a need for shelter from weather and predators, good nesting and brood-rearing habitat, and year-round sources of food and water.

amounts of cover, nesting and winter, often become the limiting factors.

Nesting Cover

Nesting cover can vary from fence rows, roadside ditches, buffer zones around marsh areas, odd-shaped areas left fallow, and vegetation strips along irrigation canals.

Prior to modern agricultural techniques, these types of areas were abundant, and upland game birds prospered. Small fields interspersed with diverse habitat types provided an abundance of nesting cover for upland game bird populations. As monoculture techniques have been implemented with changing farming methods, a marked decrease in nesting habitat diversity and



subsequent decrease in upland game bird numbers have occurred. Field sizes have increased, fence rows have been removed, marshes drained and filled, and ditches burned. All these practices have limited habitat diversity and reduced nesting cover. The practices of putting former undisturbed areas into production and early cutting of alfalfa have also reduced upland game bird production.

Land managers wishing to improve habitat for upland game birds should provide interspersed rather than continuous blocks of habitat. Drainage ditches should be left unburned to provide nesting cover for upland birds. Ditches along roadsides are often used by game birds for nesting areas and should be left undisturbed. Fence borders should be widened to at least 20 feet, and odd corners should be excluded from production and allowed to produce nesting habitat. These management practices provide travel lanes for upland game as well as habitat for a host of other wildlife species. Travel lanes consist of cover strips, fence rows, hedges, and terrace strips which connect various habitats together to form a network. Upland game birds and other wildlife species will use these habitat corridors for traveling between areas.

Alfalfa is often used by upland game bird species for nesting, particularly when no other cover is readily available. Alfalfa cutting should be delayed until late June or early July to promote nesting success and should be conducted from the inside of the field out to encourage adult birds and broods to move to uncut alfalfa and avoid the mower.

Winter Cover

The severity of Wyoming winters, coupled with a lack of winter cover, is the single greatest factor causing mortality among game bird populations. Abundant food and water reserves cannot substitute for winter cover. A lack of winter cover can suppress bird populations below the desired population level.

Heavy winter cover (also called "thermal cover") helps upland birds survive by serving as a wind break and trapping air that may warm the immediate area. Pheasants and chukars will congregate in and around these areas to roost, loaf, and feed during the winter months.

Increasing winter cover is crucial for sustaining, and perhaps increasing, upland game bird numbers. Depending on the technique, establishing new winter cover can be a simple process. Many practices used to establish nesting cover also provide winter cover. In many cases, winter cover can be established and maintained

A variety of plants is important in the development of good bird cover. Woody vegetation provides shelter from predators and the elements; forbs and grasses offer cover and easily accessible food.



simply by leaving certain areas fallow. Leaving a border strip several feet wide on either side of a fence line will improve cover condition and provide a travel corridor for upland game birds. Left unplowed, odd corners of land can serve as suitable winter cover.

A more permanent winter cover structure is a shelterbelt or windbreak. These structures act as natural snow drift fences and will not collapse under heavy snows. Upland game birds use these plantings for both loafing and roosting areas. Good shelterbelts are traditionally 150 feet wide, with a combination of low-branched trees and shrubs to provide shelter, wind breaks, and thermal cover for upland birds. Please refer to the bulletin titled "General Value of Shelterbelt Habitat to Wildlife and You," available from your Game and Fish district office, for proper procedures in designing, planting, and maintaining a shelterbelt for wildlife.

Studies indicate that, during winter, upland game birds prefer to roost in areas with feeding sites less than one-quarter mile away. Wintering areas can be easily modified to meet this criterion. Leaving rows of unharvested grain adjacent to wintering areas is a simple yet effective method of improving winter habitat for upland game bird use. Interspersing grasses or legume plantings within or near wintering areas is more

expensive and time-consuming but can be an added bonus for wintering birds.

Conclusion

Individual landowners must decide the types of cover required for upland game birds on their properties. However, remember that all cover types must be present for bird populations to prosper. An over-abundance of one cover type will not compensate for another cover type in short supply. The cover type in short supply will ultimately act as a limiting factor for the bird population(s) present.

Landowners should assess the types and amounts of cover available and then begin to propagate those cover type(s) in short supply. Assistance is available from the Wyoming Game and Fish Department and the Soil Conservation Service. Once initiated, cover establishment will not occur overnight. It is a management action that may take years to successfully complete. However, the resulting increased population of game birds will be well worth the effort.

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This publication is one in a series of habitat extension bulletins produced by the Wyoming Game and Fish Department. Call 1-800-842-1934 for additional information or assistance.