

WILDLIFE MANAGEMENT UNIT 3 - OGDEN

Boundary Description

Weber, Box Elder, Cache and Morgan counties - Boundary begins at Hyrum and SR-101; east on SR-101 to the Ant Flat Road (at Hardware Ranch); south on this road to SR-39; west and south on SR-39 to SR-167 (Trappers Loop Road); south on SR-167 to SR-30 at Mountain Green; west along SR-30 to Interstate 84; west on I-84 to Interstate 15; north on I-15 to US-91; east and north on US-91 to SR-101; east on SR-101 to Hyrum.

The Ogden deer herd unit is located within Weber, Cache, Box Elder and Morgan counties. Municipalities located within or along the unit boundaries include: Hyrum, Wellsville, Mantua, Perry, Willard, Ogden, Mountain Green and Huntsville. The major drainages are the Little Bear River, Ogden River and Box Elder Creek. Smaller drainages are Davenport Creek, Paradise Dry Canyon, Hyrum Dry Canyon, Hyrum Green Canyon, Perry Canyon and Willard Canyon. The topography is steep and rough on the western face of the Wasatch Mountains above Willard, Perry, Ogden, east of Avon and Paradise, and more gentle in-between. Elevation ranges from 4,400 feet near Willard to 9,764 feet on Willard Peak. According to the most recent Utah Big Game Management Plan (1998), there is approximately 233,469 acres of useable deer winter range in the unit. Summer range totals 152,887 acres. A majority of the winter range (82%) and summer range (72%) is on private land. The U.S. Forest Service administers 19% of the summer range and 13% of the winter range. The Division of Wildlife Resources maintains 6% of the deer summer range and 5% of the winter range on the unit.

Major deer wintering areas are found between 4,600 feet and 7,000 feet on the Wasatch face above Willard and Perry; between 5,100 to 7,000 feet north and east of Mantua Reservoir; from 5,600 to 7,000 feet in Threemile Canyon; and between 5,400 and 7,000 feet along the slopes on the southeast side of Cache Valley above Paradise and Avon. During severe winters, snow restricts deer use to Threemile Canyon, the East Fork of the Little Bear River, the area south of Porcupine Reservoir, Paradise Dry Canyon, Hyrum Dry Canyon, Perry Canyon and the southeast corner of the unit south of Willard (King and Muir 1971).

Management unit 3 supports approximately 135,907 acres of useable elk summer range and 165,542 acres of elk winter range. Approximately 80% of the summer and 81% of the winter range is privately owned. Most of the remaining range is administered by the U.S. Forest Service and the Division of Wildlife Resources.

Big Game Management Objectives

The unit management objectives for mule deer are to achieve a modeled target population size of 11,000 wintering deer, and a post-season buck-doe ratio of 15:100 with 30% of these bucks being 2-point or better. Unit management elk objectives call for 1,200 wintering elk with the post-season herd composition consisting of a bull to cow ratio of 8:100, with at least half of these bulls being 2½ years of age or older (DeBloois et. al 2001). The overall fawn to doe ratio trend for mule deer over the past decade appears to be fairly stable, averaging just over 70 fawns/100 does. The highest ratio was 96 fawns/100 does in 1998-99, while the low was 45 in 1993-94 (Evans et. al 1996, DeBloois et. al 2001). Continued urbanization and loss of critical winter range on this unit may jeopardize target herd unit objectives.

Study Site Description

Management unit 3 contains a total of 17 trend studies, all of which are located within the winter range. Twelve of these studies were established in 1984, the other five in 1985. All were reread in 1990 and 1996. In 2001, 8 studies were reread, while 9 studies were suspended. In 2006, 6 studies were re-read and 2 additional studies were suspended. Studies were suspended for several reasons. These include the lack of wildlife use, urban development, and sites not being rehabilitated following wildfires resulting in the loss of key browse, primarily sagebrush. Suspended sites will be reevaluated during the next rotation in 2011 to determine whether they will be reread or permanently suspended.

SUMMARY

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A major factor influencing vegetative trends is precipitation. Precipitation data from Pine View Dam, Weber Basin Pump Plant #3, and Brigham City Waste show alternating wet and dry cycles since the range trend study sites were first established in 1984 (Fig. 1). Drought conditions (less than 75% of annual precipitation) were experienced in 1989, 1990, 1992, 2002, and 2003. From 1999 to 2003, precipitation was less than 90% normal. Spring (April-June) precipitation was less than 75% of normal in 1985, 1989, 1992, 1994, and 2000 (Utah Climate Summaries 2006). Spring precipitation is essential for shrub and perennial grass and forb recruitment. Lower than normal precipitation, especially in consecutive years, likely plays a primary role in

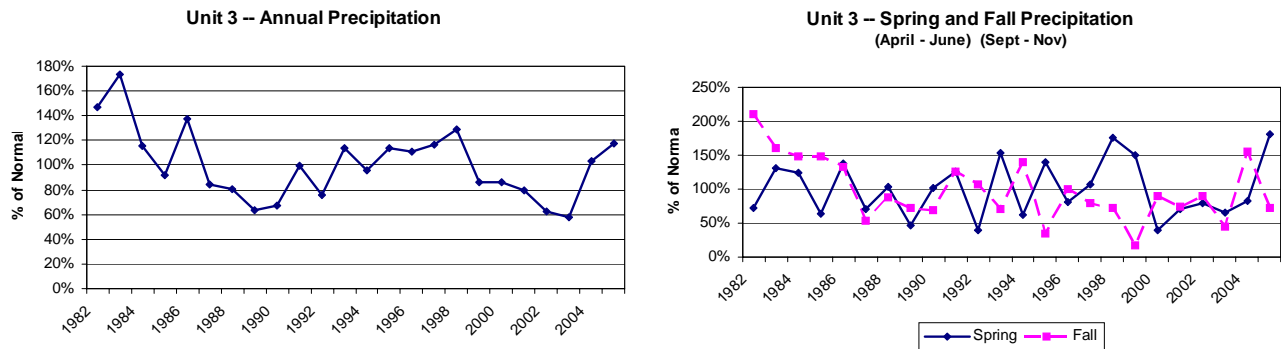


Figure 1. Annual precipitation (left) and Spring/Fall precipitation (right) for the Ogden unit using precipitation from weather stations at Pine View Dam, Weber Basin Pump Plant # 3, and Brigham City Waste.

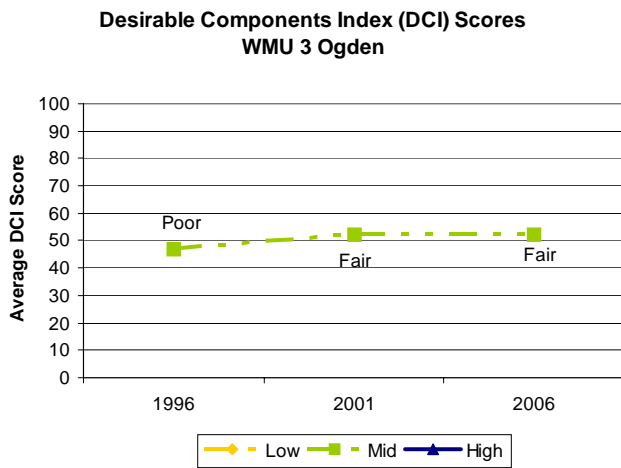


Figure 2. The Desirable Components Index Ratings are divided into three categories because of different ecological potential, these include: low, mid, and high potential categories.

The browse trend (Fig. 3) increased in 1996, but since then has continually been decreasing. In 2006, 2 of the 6 studies had downward trends, 2 were stable, and 2 had upward trends. Density of mountain big sagebrush (Fig. 4) on average has been decreasing

increased decadence and decreased reproduction in shrub populations, primarily big sagebrush.

The Desirable Component Index (DCI) for the Ogden unit averaged a poor to fair rating from 1996 to 2006 for mid potential studies (Fig. 2). Preferred browse cover has remained at moderate levels with a slight decrease in 2006. Moderate decadence on shrubs like sagebrush has kept the score at lower levels. Although cheatgrass cover has decreased with each observation since 1996. High annual grass cover and noxious weeds continue to be a major factor in negatively affecting the score.

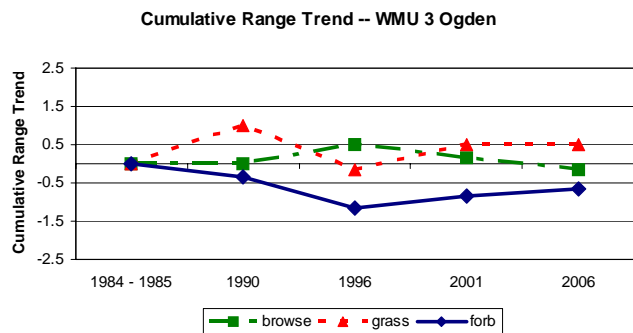


Figure 3. Cumulative Range Trend for WMU 3 Ogden.

since 1996, while percent decadence has been increasing (Fig. 5). Cover increased in 2001, but decreased to its lowest level in 2006 (Fig. 6). Perennial grasses and forbs have been up since 1996. Cheatgrass has shown decreases in cover and nested frequency and this may be due to the competitive influence of increasing bulbous bluegrass (Figs. 7 and 8).

A common trend in the Ogden unit was a continual increase of bulbous bluegrass nested frequency from 1984 to 2006 (Fig. 9). This occurred on 5 of the 6 studies. Geertsen Canyon (3-18) did not have an increasing bulbous bluegrass nested frequency trend, but has had a high nested frequency value since 1984. This species is a low value perennial that has many characteristics of annual species. It is highly competitive, has low forage value after spring, and can increase the fire hazard when overly abundant. Studies in this unit have the added problem of poor forb composition. Weedy increasers, both annual and perennial species, are widespread and make up the majority of the forb component on most of the sites in the Ogden unit. These species include ragweed, prickly lettuce, western yarrow, pacific aster, tarweed, curlycup gumweed, thistle, storksbill, and dyer's woad. Dyer's woad is a noxious weed and is spreading rapidly in some areas of the unit.

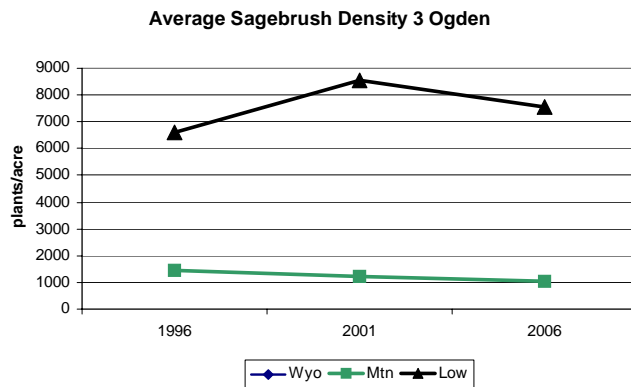


Figure 4. Average sagebrush density for mountain big sagebrush and low sagebrush for WMU 3 Ogden.

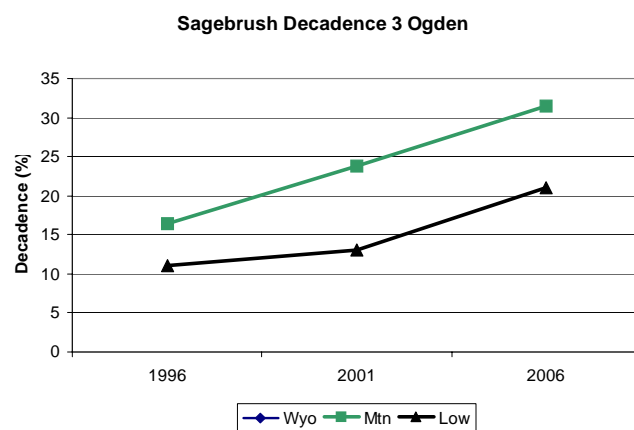


Figure 5. Average percent decadence for sagebrush for WMU 3 Ogden.

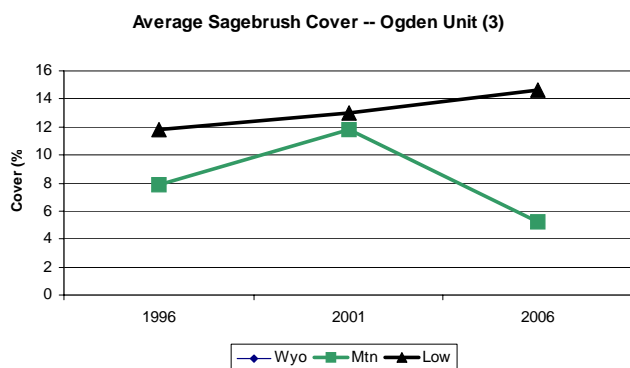


Figure 6. Average percent sagebrush cover for WMU 3 Ogden.

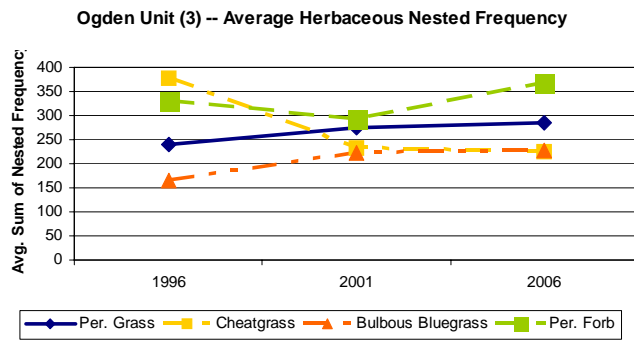


Figure 7. Average herbaceous nested frequency for WMU 3 Ogden.

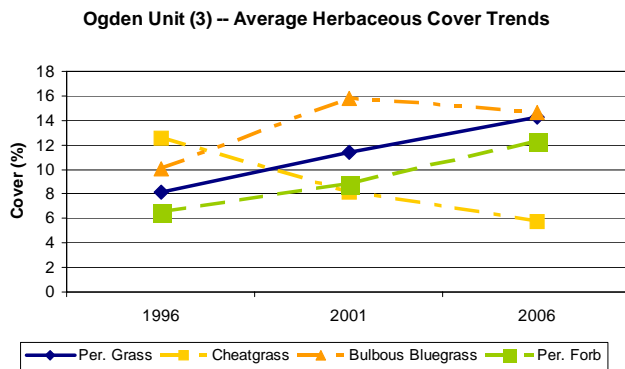


Figure 8. Average herbaceous cover for WMU 3 Ogden.

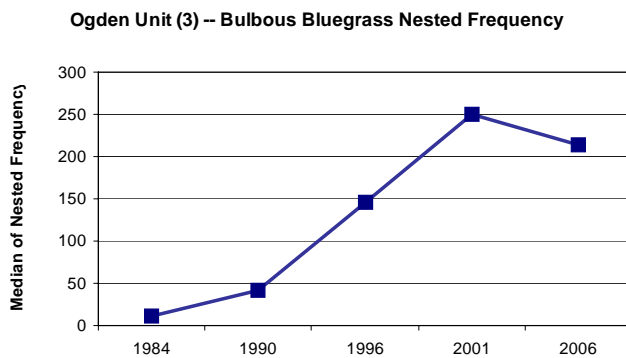


Figure 9. Median sum of nested frequency for bulbous bluegrass for WMU 3 Ogden.