

Status of Upland Game, 2006

by William P. Taylor

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Grouse

Ruffed grouse in most of their range in Alaska cycle in a dramatic natural, approximately 9-year cycle. Formal ruffed grouse drumming counts conducted in the Anderson/Clear area since 1993 have provided an accurate indication of the status of this species throughout their range in the Interior (Figure 1). Drumming counts conducted at Anderson/Clear this spring indicate ruffed grouse numbers peaked in 2005 and started down (Table 1). Count conditions were good; however, two factors may have biased the Anderson/Clear counts. Winter conditions in that area were unusual with very little snow available for roosting through most of winter. Secondly, we observed an exceptionally high number of predator killed ruffed grouse carcasses while conducting our counts. Other ruffed grouse counts conducted this spring near Fairbanks and on Fort Wainwright yielded numbers similar to or higher than limited data from 2005. I heard several ruffed grouse drumming, including multiple males at some locations, while working in the Delta area this spring.

Grouse hunters in the Interior reported flushing and harvesting more ruffed grouse last fall. Wings of fall shot birds when aged yielded 69% juveniles ($n = 148$).

In summary, it appears ruffed grouse numbers peaked in their natural cycle last year, but numbers remain moderately high, and they should be plentiful throughout most of their range in the Interior. However, if the cycle continues as it has in the past (Figure 1), a substantial drop in numbers will likely occur next year.

The translocated population in the Mat-Su Valleys continues at low density throughout most of the area with isolated pockets of moderate density and reports of continued range expansion to the south and west. Drumming counts have been conducted for several years but extensive development and associated noises have hampered the collection of comparable data. Past data provide no evidence of this population cycling in the natural cycle observed with ruffed grouse in the Interior. Observations and harvest reports last fall coupled with observations this spring indicate mild increases.

The translocated population on the Kenai Peninsula has not fared as well. Although ruffed grouse are established in the vicinity of all 3 release sites, there has been very little evidence of bird numbers increasing or spreading into new habitats and densities have remained very low. No formal ruffed grouse drumming counts are being conducted on the Kenai, but a few more males were reported this spring. These reports along with an unsubstantiated report last fall of several birds in an area outside of the release zones give hope of some improvement.

Spruce grouse have been increasing since 2001. In 2005 spruce grouse numbers were moderate to high throughout most of their range in Southcentral, including the Kenai Peninsula. I examined 62 wings from spruce grouse harvested last fall in Southcentral of which 76% were juveniles (Table 2). I also observed more spruce grouse in several locations in Unit 14 than I have since the last peak in 1997.

Interior populations of spruce grouse have not increased similarly. Hunter reports from last fall near Fairbanks indicate spruce grouse numbers were actually down some from 2004, and the percent juveniles derived from wings of birds shot in the Interior was only 48 ($n = 98$). Observations this spring from several locations in the Interior also indicate moderate numbers.

Spruce grouse numbers throughout Southcentral this fall are expected to be at high levels in good habitat areas along drainages with healthy stands of middle-aged white spruce, whereas numbers in the Interior should be in moderate numbers.

Sharp-tailed grouse densities have been increasing since 2000. Last fall hunters in the Delta area reported good success on sharptails. A sample of 148 wings yielded a very high 84% juveniles.

Despite these positive results, data collected this spring at 18 historical lek sites I examined in the Delta agricultural area and at 5 sites examined by a biologist on Fort Greely indicated fewer sharptails than observed in 2005. Sharp-tailed grouse populations in the Delta area have benefited substantially from the numerous wild fires during the last 30 years and from extensive land manipulation for agricultural purposes. The advent and extension of the Conservation Reserve Program has also been beneficial. However, the recent expansion of fields by several landowners through the removal of windrows and brush piles has adversely affected sharptails in those areas.

Sharp-tailed grouse numbers will likely be lower than last year but should still be at moderate to high levels in the Delta Junction/Fort Greely area and in better habitat areas in the zone from Tanacross to Northway, including portions of the Taylor Highway. Marginal habitat areas north and south of Fairbanks, north and west of Glennallen and east of Anderson/Clear can expect lower densities.

Ptarmigan

Willow Ptarmigan populations, which occupy sub-alpine habitats throughout the road system, have been increasing since 2003. Hunters reported good sized flocks in many areas this winter, with the largest numbers observed in Unit 13E. I sexed and aged a small sample of willow ptarmigan carcasses from Units 13B & E and 14A, which yielded 50% juveniles ($n = 79$). However, ptarmigan form into primarily unisex flocks during winter and my sample was dominated by flocks of predominately adult males, which likely under represented the number of juveniles. This spring I conducted territorial male ptarmigan counts at 5 sites in Units 13B&E. At all 5 sites I observed more territorial males than last year (Table 3).

It appears willow ptarmigan densities, which peaked later than grouse during the last cycle, are still increasing. I expect their numbers to be moderately high throughout most of their range in the southern Interior and Southcentral. One factor that could adversely affect this optimistic prediction is the late, severe spring weather that occurred in the

Interior and northern part of Southcentral this year. The severe weather may have been detrimental to ptarmigan brood production and/or survival (see discussion under the Comment Section).

Rock ptarmigan exist in sub-alpine areas with moderate slope supporting plentiful dwarf birch, this species primary winter food. Rock ptarmigan populations in both the Unit 13 and 20 portions of the Alaska Range and, to a lesser degree, north of Fairbanks have remained at relatively low densities through the 1990's up to the present. While conducting ptarmigan surveys along the Denali Highway this spring I did observe a few rock ptarmigan at 2 count sites (Table 3). These observations were a slight increase over the number counted the last 3 years. Unfortunately the lingering presence of deep soft snow prevented me from surveying the best count site for rock ptarmigan. Reports from the dome areas north of Fairbanks also indicated weak numbers.

It appears rock ptarmigan populations will continue at relatively low densities in the Unit 13 and 20 portions of the Alaska Range. Slightly higher densities maybe observed in traditional rock ptarmigan areas north of Fairbanks and in the Talkeetna Mountains. Accessible areas of the Chugach and Kenai Mountains have never supported large populations of rock ptarmigan, but numbers in these areas should be at moderate levels.

White-tailed ptarmigan occur at moderately low densities in rugged, high-elevation alpine habitats from the Alaska Range south through the Kenai Peninsula. Population data on Alaskan birds is insufficient to determine if these birds fluctuate in a "natural" cycle, but it does not appear so. Whitetails have smaller broods and their reluctance to fly makes them more vulnerable, but the ruggedness of their habitat for most of the year protects them from extensive human activities. Fortunately, this smallest of our upland birds appears to be maintaining populations in most of their historical range in Southcentral Alaska.

Snowshoe Hare

Most snowshoe hare populations in the Interior and Southcentral Alaska cycle as dramatically as ruffed grouse (Figure 1). Snowshoe hares have been increasing since 2003 in the eastern Interior and 2004 in more central areas. Populations on the Kenai Peninsula did not begin increases until 2005. Substantial increases were observed in several areas this spring, exemplified by Steve DuBois counts south of Delta Junction (Figure 2). I also documented high numbers of hares along the Denali Highway just east of Cantwell in mid-May. Reports from the Kenai Peninsula indicate hares increased for the second year.

Snowshoe hares are now approaching high levels in good habitats in the Interior and northern part of Southcentral. The lower Susitna and Matanuska Valleys have moderate levels, and the Kenai Peninsula densities are still low but approaching moderate levels in some areas. If the natural cycle continues similar to past years when highs occurred in the early 1970's and 1980's, around 1990, and between 1998 and 2000, I would expect

numbers to peak between 2007 and 2009 with peaks occurring first in the eastern Interior then working west and south.

Comments

It appears that grouse populations throughout most of the road system have peaked, and will probably be down significantly next year with ruffed grouse declining most dramatically. The possible exception is spruce grouse in Southcentral. Willow ptarmigan will likely be high another year before starting down in their natural cycle. Snowshoe hares should continue to increase for 1 or 2 more years before declining in the Interior and northern Southcentral. The Kenai Peninsula may see hare numbers gradually increasing for 3 more years.

In addition to the natural cycle, 2 other factors that may be significantly influencing these upland game population projections are predators and severe spring weather. Predator numbers are high or increasing, possibly supported in the Interior by last year's very high vole levels. Goshawk numbers are quite high and along with great horned owls are usually the main predators of grouse. Lynx and coyotes are also plentiful and increasing. With snowshoe hare numbers moderately high and increasing while grouse numbers are starting to decline, high predator numbers may push grouse down to very low numbers as occurred during the previous cycle (Figure 1).

Additionally, the Interior and the northern portion of Unit 13 had a very late spring with high elevations receiving heavy frost damage in late June. It appears these areas received heavy damage to flowering plants and may have poor berry production. Much of the Denali Highway area received 4 to 6 inches of snow in late June that was preceded by several days of cold wet weather. This occurred when ptarmigan chicks would normally be hatching and could have impacted brood survival.

Cool wet spring weather is more beneficial to plant growth and insect production than warm dry weather, and is only detrimental to chicks if it is severely cold and wet at or shortly following hatching.