## Raptor population trends for Boulder County by species combining survey data from all locations <br> 1990-2011

The graphs below show more detail of the variations of wintering raptor observations for the individual species observed. Data are plotted for the winters 1989-90 through 2007-08. Four plots are shown, with two species plotted in each. First are the Ferruginous Hawks and Rough-legged Hawks, which declined dramatically during 1993-96 and have continued a gradual decline since.


The next set of plots shows the raptors that are becoming more common over the period. Both species are generalists that tolerate human habitation relatively well, even to the extent that they sometimes nest in cities. The most famous example, of course, is "Pale Male" with his nests overlooking Central Park in New York City. The contrast between the decreases shown in the figure above and the increases shown below provides much of the reason that no there is no clear overall trend in the total number of raptors observed in the surveys over the 1990-2008 period. (See the totals for all species.)


The eagles are always of special interest. Here, we see a precipitous drop in the number of Bald Eagles in the 1993-1996 period. However, there has been some recovery since then, probably because there are now some Bald Eagle nests in the county, and hence resident, non-migrating birds. Golden Eagle observations have fluctuated over a factor-of-three range, but it is not clear that there is a real trend.


The final graph shows two species that have always been uncommon. The stark contrast between increasing winter populations and decreasing nesting populations of Northern Harriers in Boulder County suggests that good foraging habitat does not necessarily make good nesting habitat. We suspect that fragmentation of Northern Harrier nesting habitat is leading to increased predation on young and frequent nest failures.


