

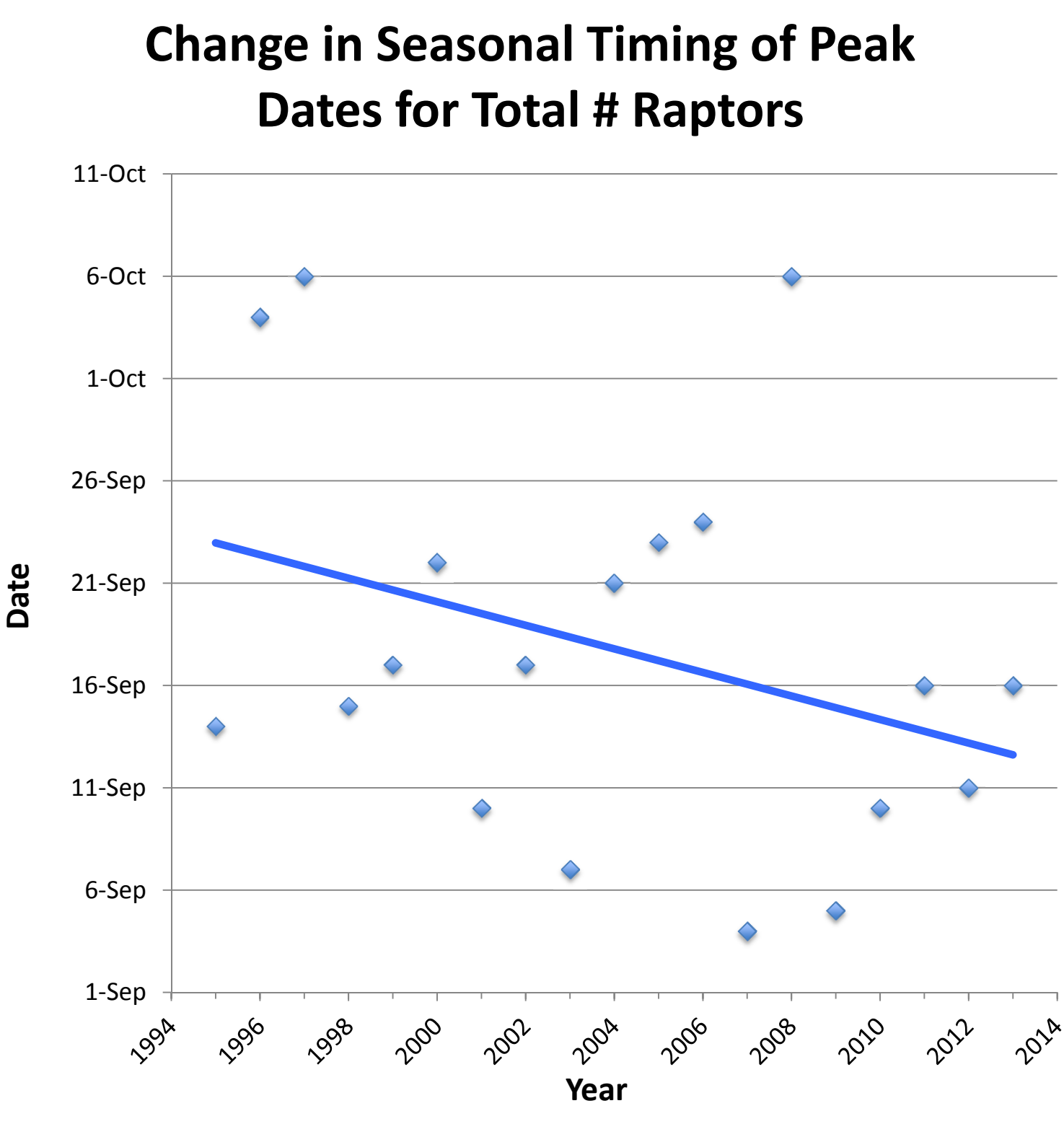
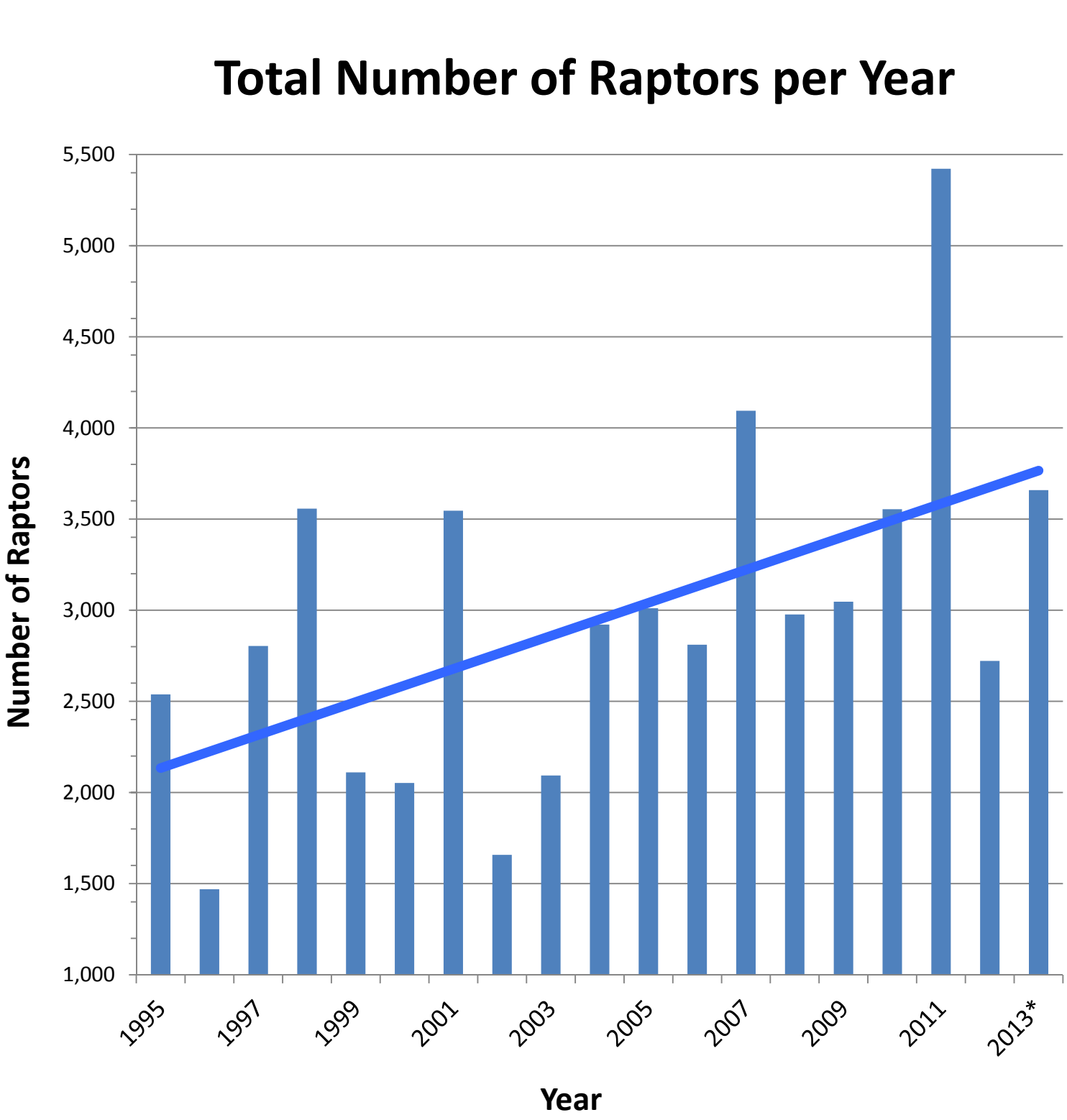
Is the Timing of Raptor Migration changing at Cadillac Mountain?

Angi King Johnston¹, Seth Benz¹ and Abe Miller-Rushing²

¹Schoodic Institute at Acadia National Park; ²National Park Service, Acadia National Park

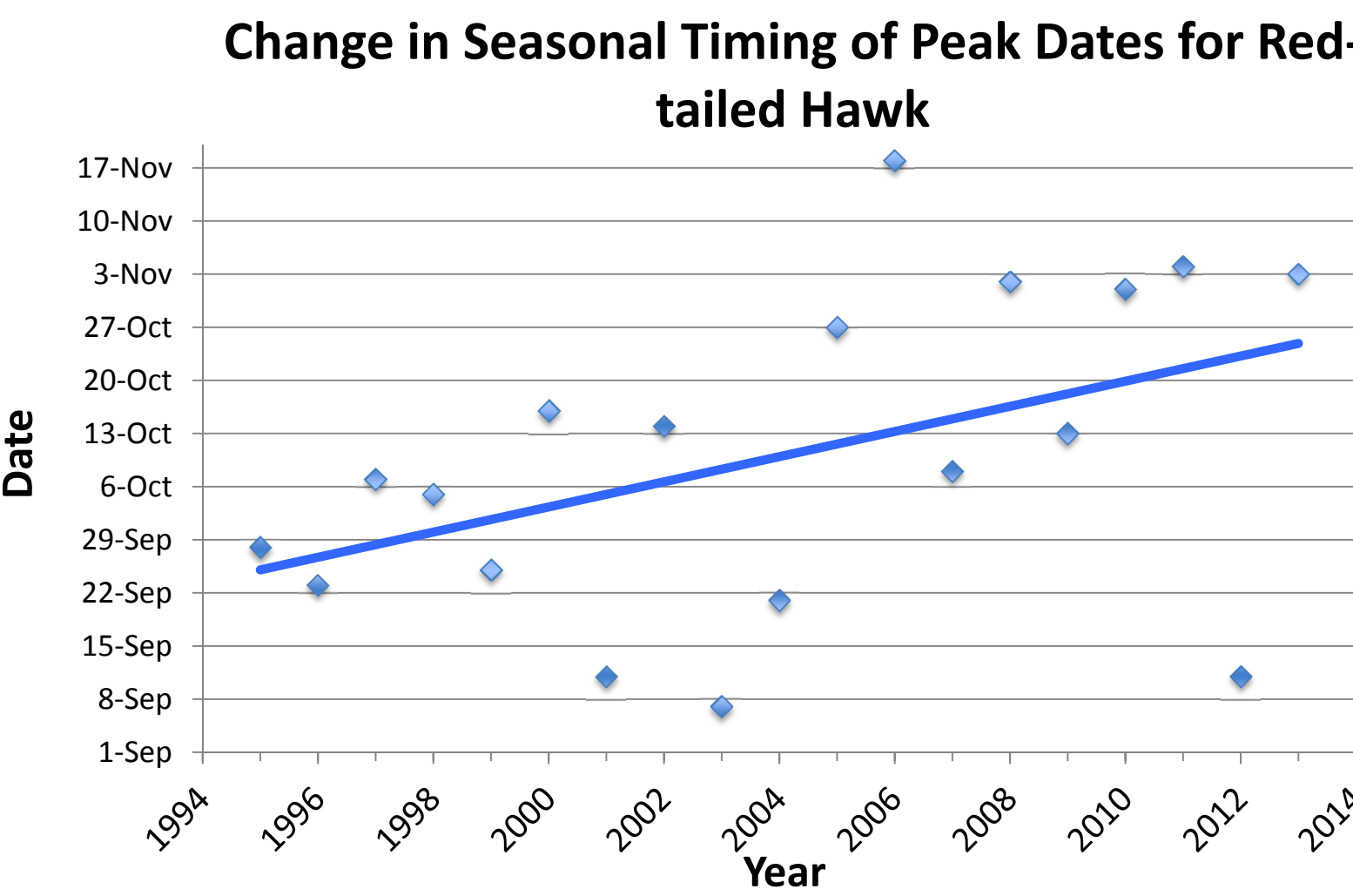
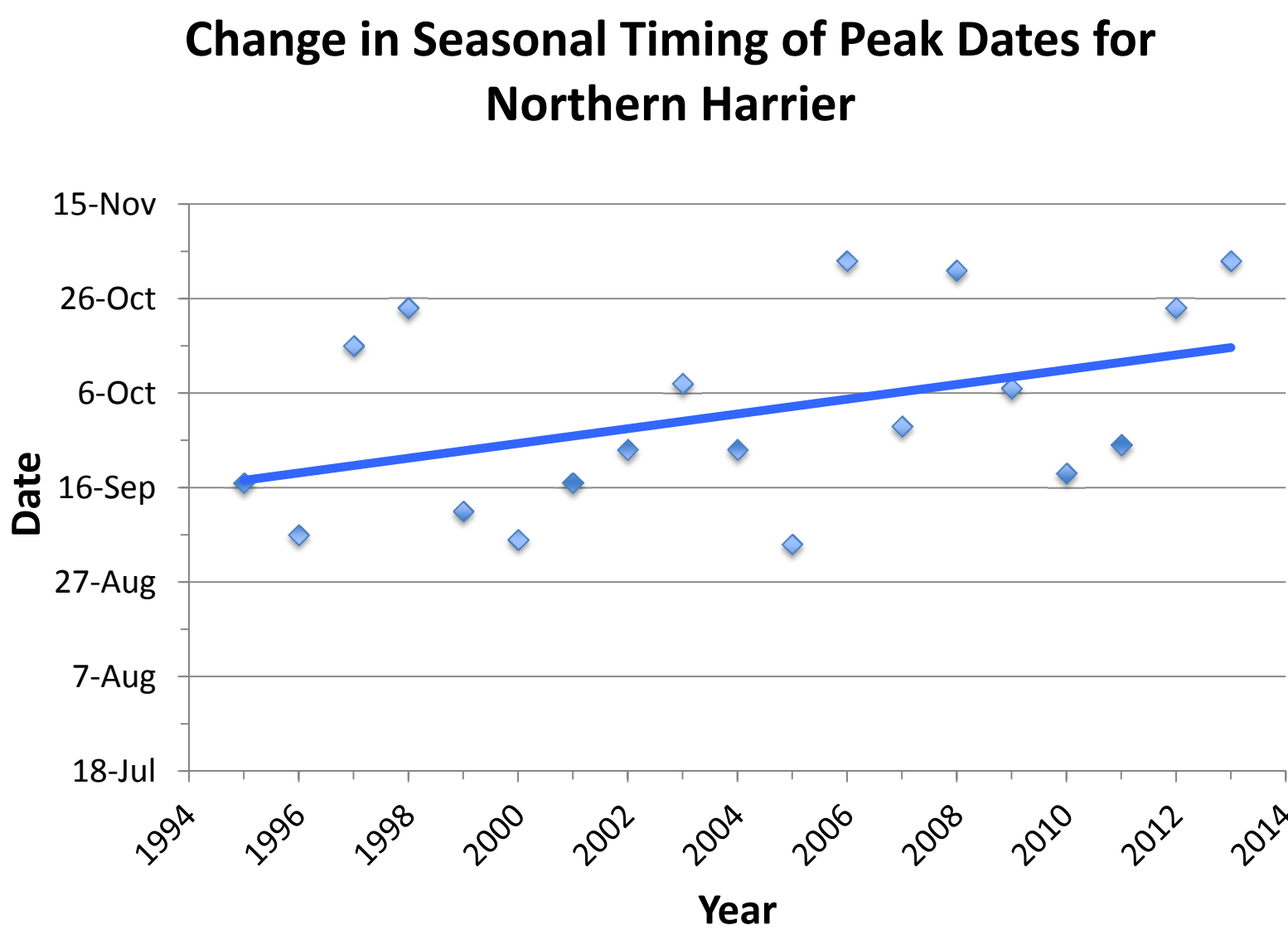
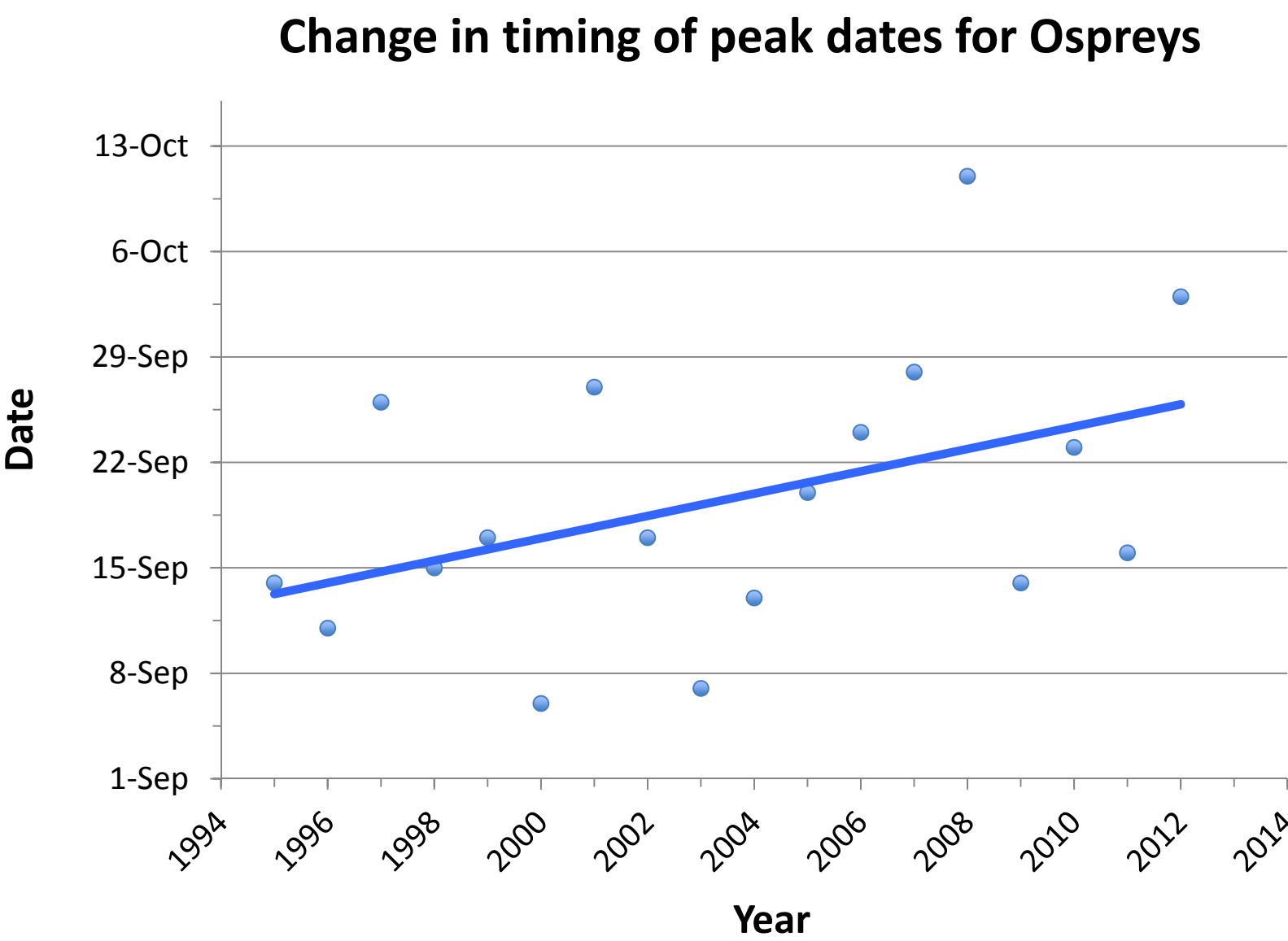


2014 marks the 20th anniversary of counting migrating raptors on top of Cadillac Mountain in Acadia National Park. Acadia’s Hawk Watch is excellent citizen science focusing on collaborating science-based data collection and interpretation. These many years of data are just starting to be analyzed at Acadia and some interesting trends are becoming visible.

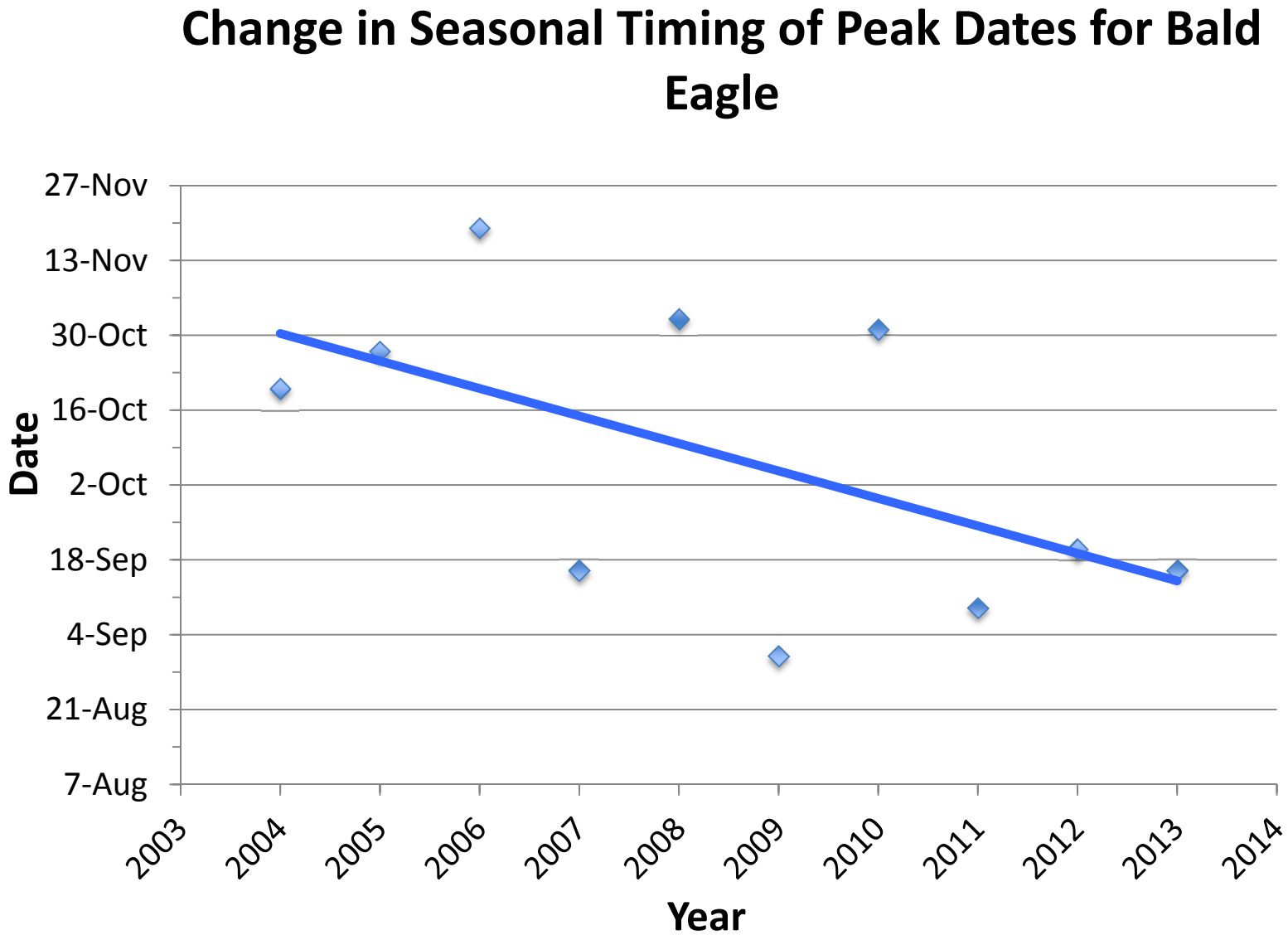
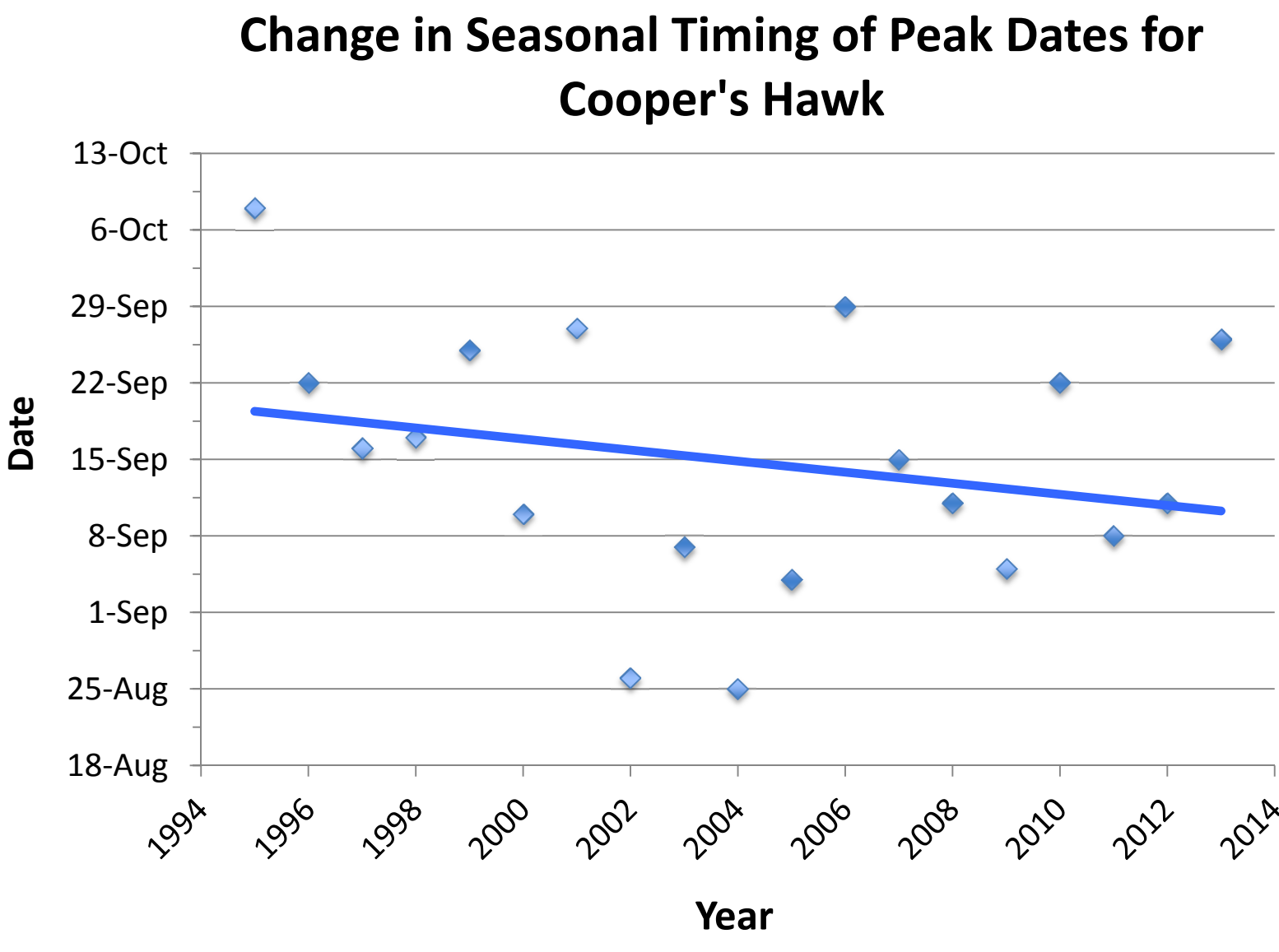
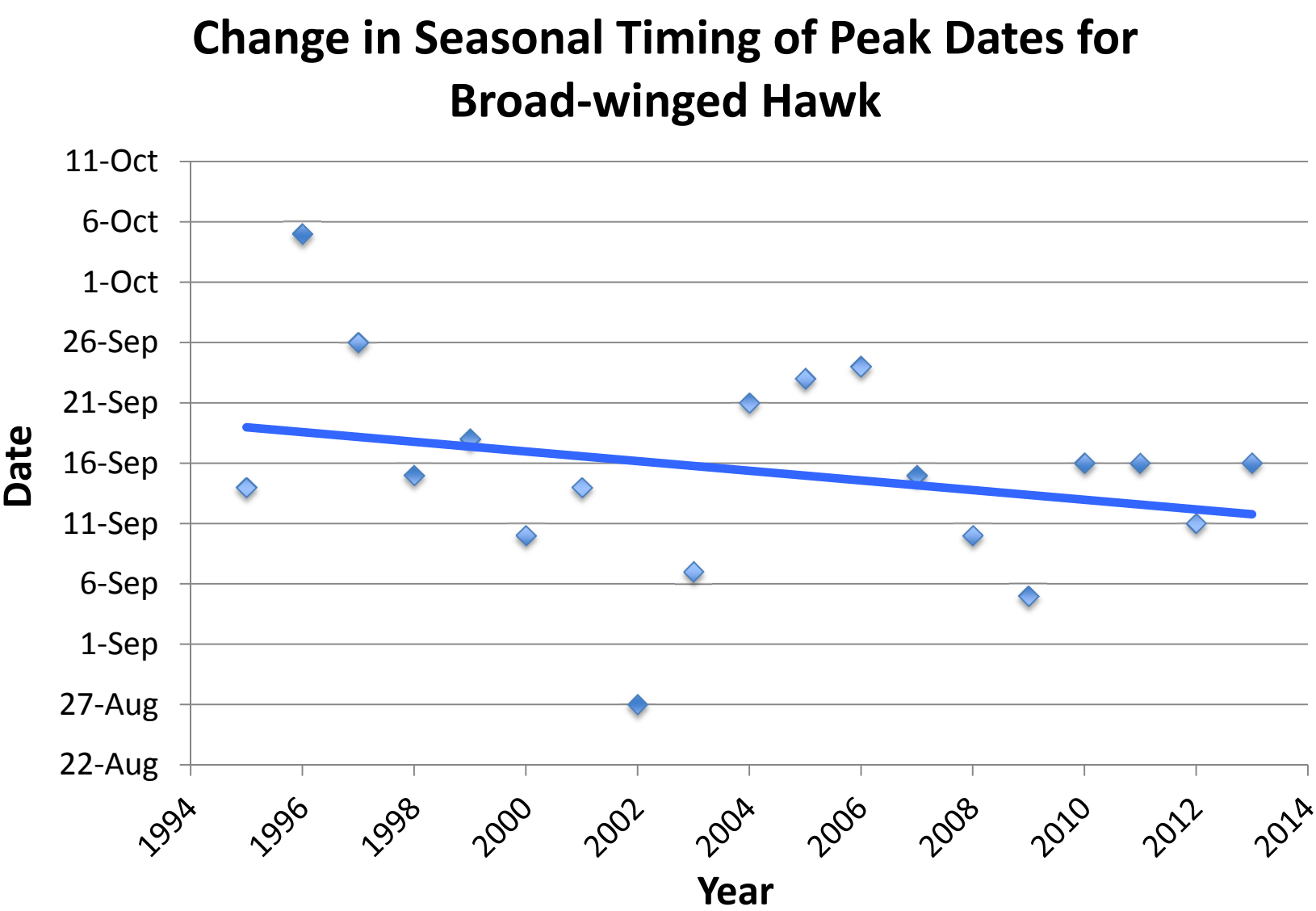
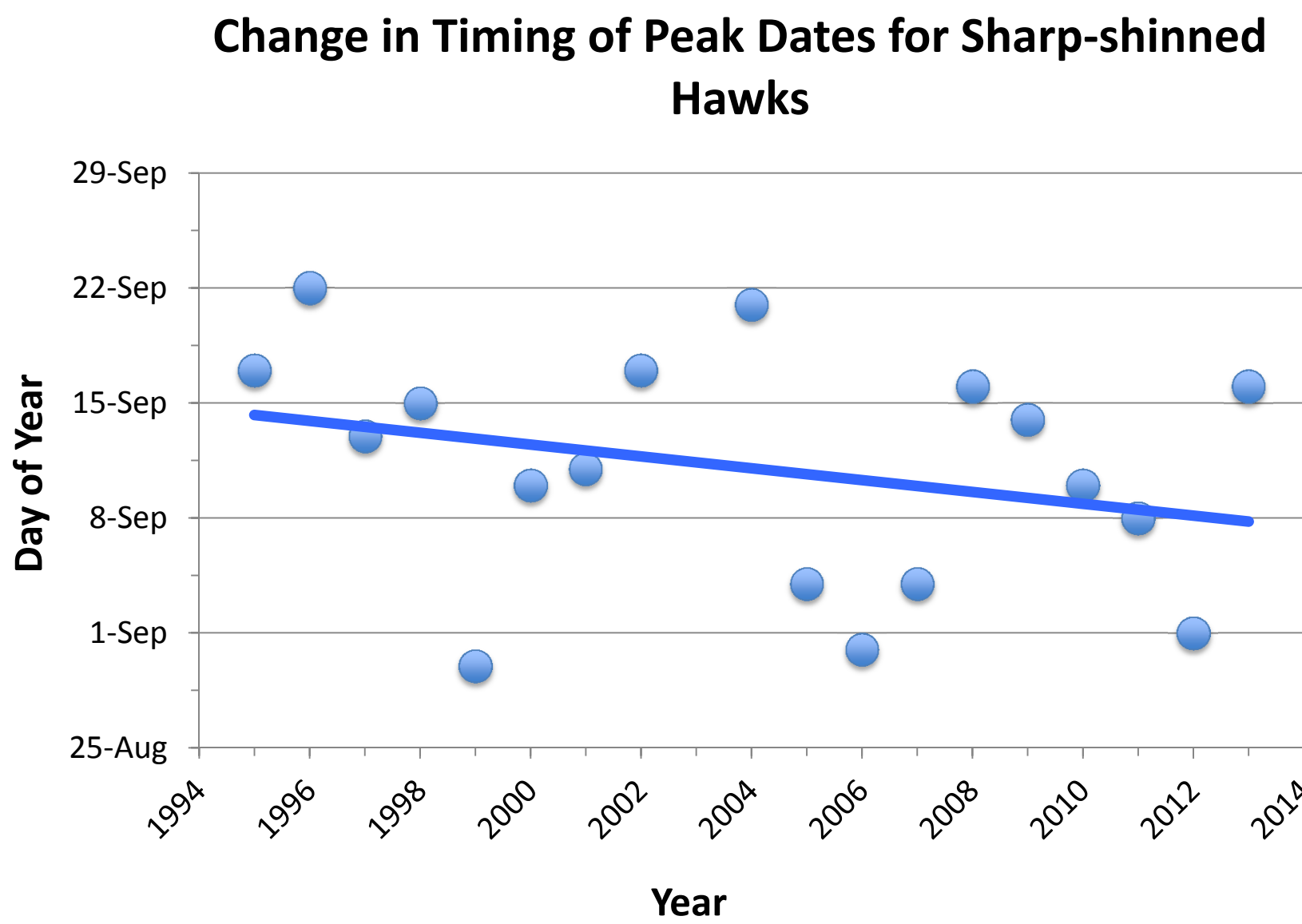


In Acadia, thirteen species of raptors with an average total of 2,950 individuals are routinely seen each fall migration season. Trends indicate that raptor numbers are increasing over the last 19 years for most species. Interestingly, when the highest raptor count day of each season (Peak Date) is examined, the trend indicates that the Peak Date is about a week earlier now than nineteen years ago. Each common species was then evaluated to see if they conformed with the overall trend. In general, some species appear to be migrating earlier, some later in the season, and some have changed very little over the last two decades.

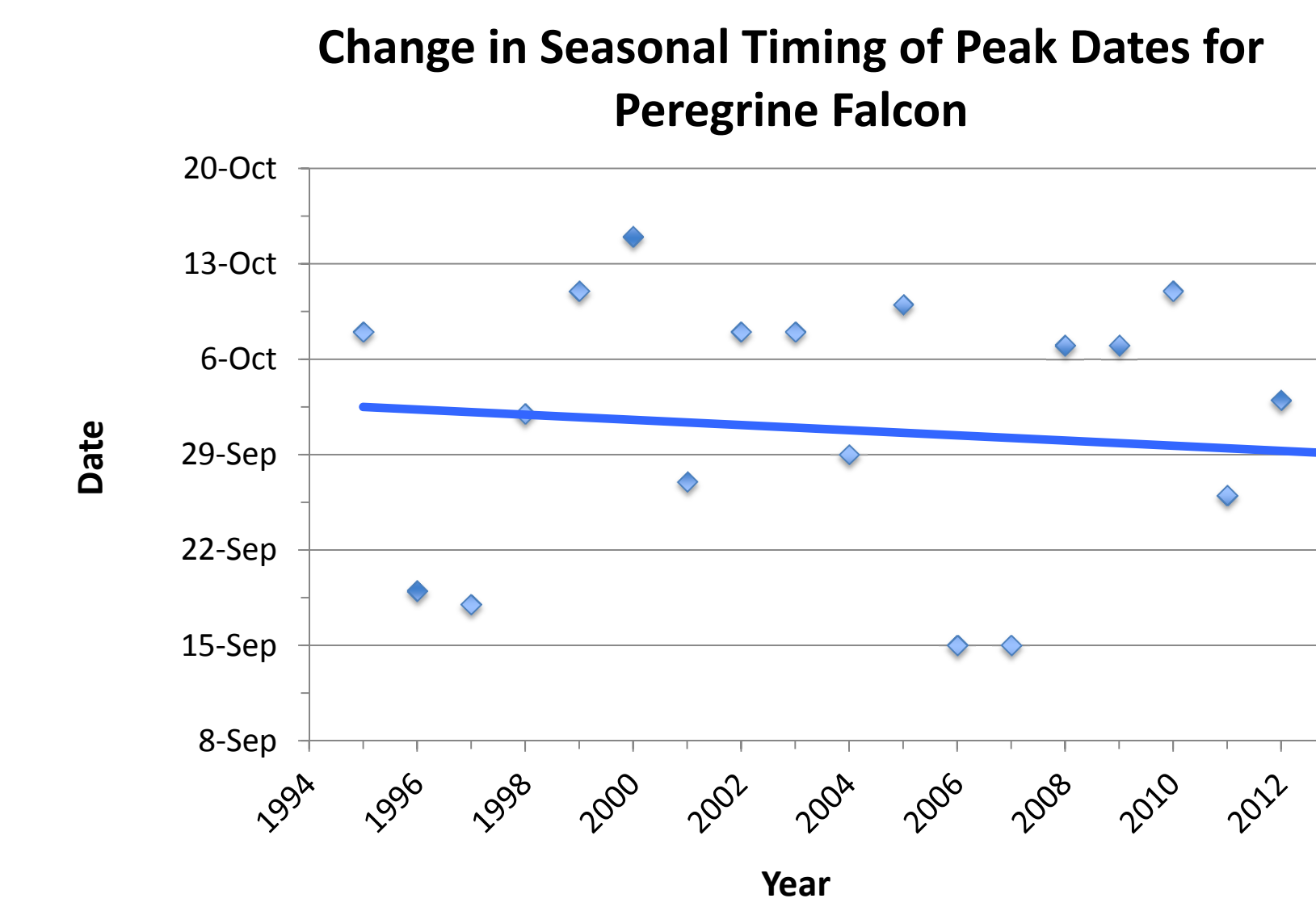
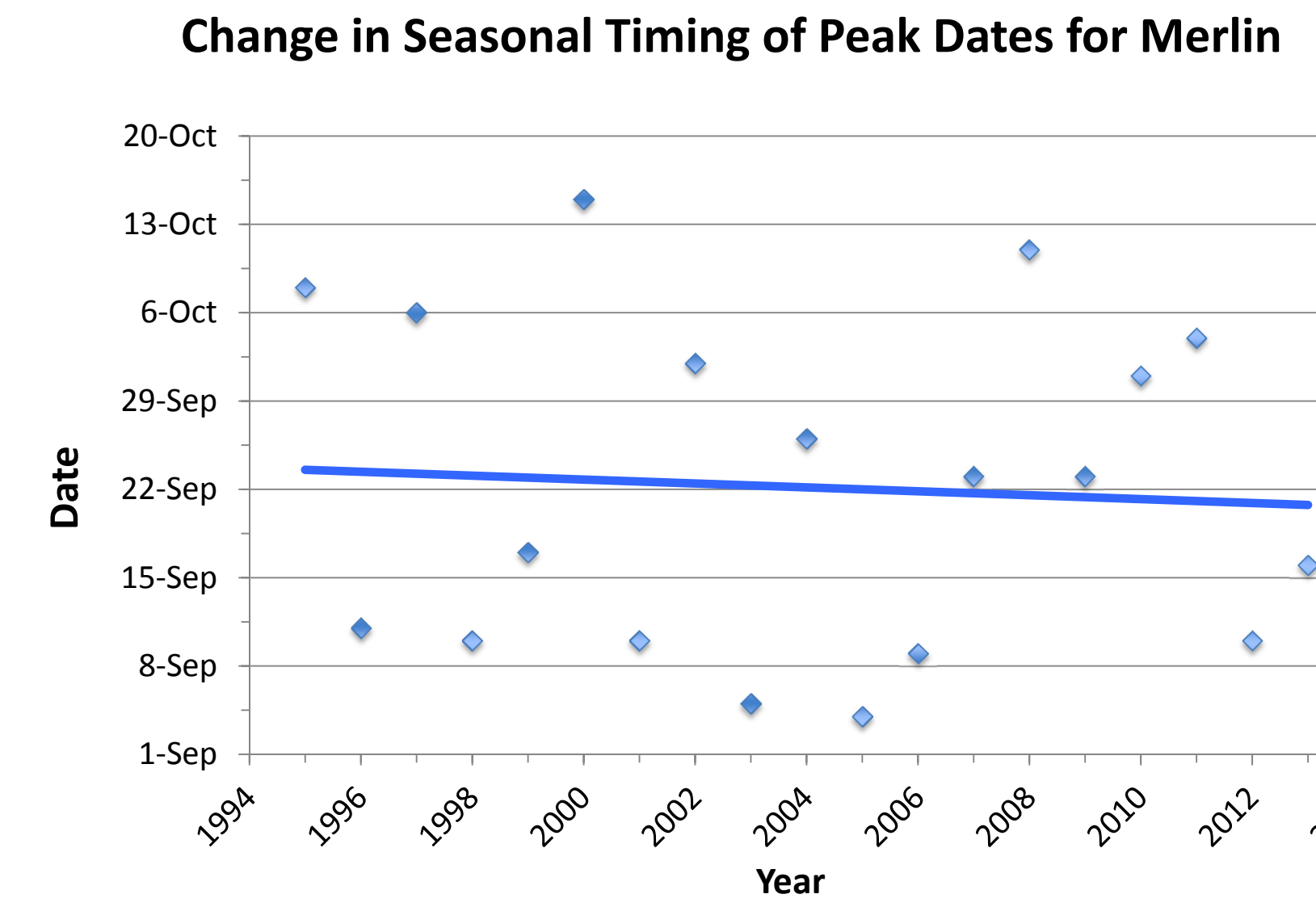
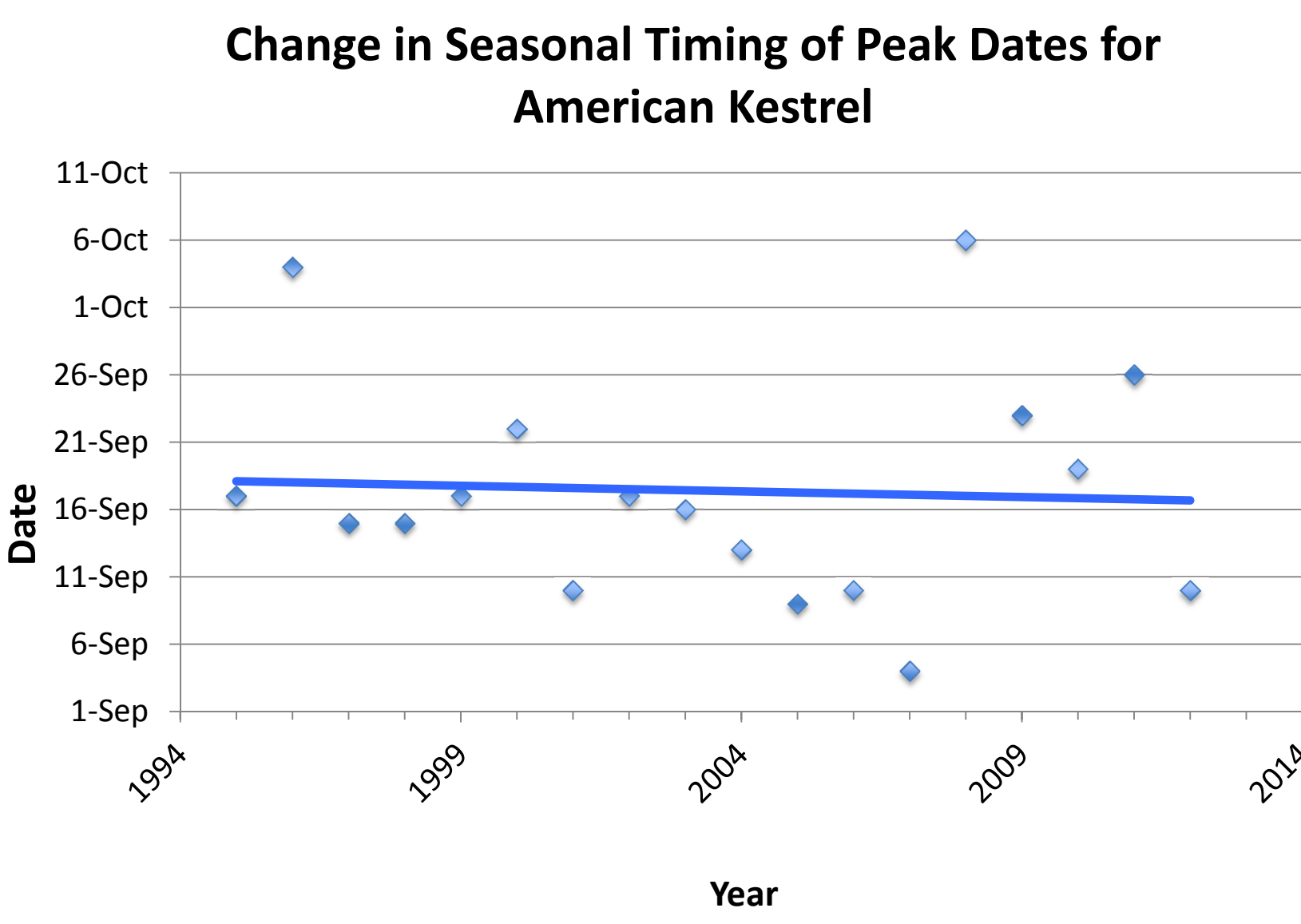
Species Migrating Later



Species Migrating Earlier



Species Migrating Consistently



Discussion

Timing of migration does appear to be changing for some species at Cadillac Mountain. Reasons for these changes could be food and/or temperature related. Raptors that prey on songbirds or other bird species, appear to migrate earlier, such as Sharp-shinned Hawks and Bald Eagles. Raptors that tolerate colder temperatures or prey on animals that don’t migrate, like Red-tailed Hawks, Northern Harriers, and Ospreys, appear to migrate later in the season. These changes could be associated with a changing climate. Further statistical analysis, continued long-term monitoring, and more detailed research is needed to understand these changes more.