



Photo by Ron Crandall

**Tussey Mountain      Shaver's Creek Environmental Center      State College Bird Club      Mid State Trail      Geology and Migration      Bald Eagle Mountain      Scotia Barrens**

Tussey Mountain has long been known as a migration corridor for migrating raptors since the State College birding community sat at a now-absent fire tower south of the present day watch. However, we didn't know about its potential for spring migration until the mid-1990s, when David Brandes, a Penn State graduate student, took time during his spring break to patiently wait through harsh March conditions to observe good numbers of migrating Golden Eagles, as well as Red-tailed and Red-shouldered Hawks.

The watch has had a full-time counter each spring (late February to end of April) since 2001. From this vantage point, the hawk watching enthusiast can observe some of the largest numbers of spring-migrating Golden Eagles to be found in eastern North America. Tussey Mountain Hawkwatch is sponsored by Shaver's Creek Environmental Center, the State College Bird Club, and the generosity of individual donors.

Tucked within Penn State's Stone Valley Forest is Shaver's Creek Environmental Center. Shaver's Creek was founded in 1976 as a resource for the community, and as a field laboratory for Penn State students to get hands-on experience teaching about the natural world. The programs at the Environmental Center provide a mix of educational and recreational opportunities for families, schools, corporate groups, and Penn State students.

Shaver's Creek also features a raptor center with an array of birds of prey, as well as reptiles and amphibians. All of the animals are considered nonreleasable. Most have suffered a permanent injury, which means their survival in the wild is not likely, due to loss of ability to fly, catch food, tear food apart, or perform similar survival functions. The raptor center staff cares for these animals, providing food and clean shelter, and uses them as educational ambassadors in Traveling Naturalist Programs.

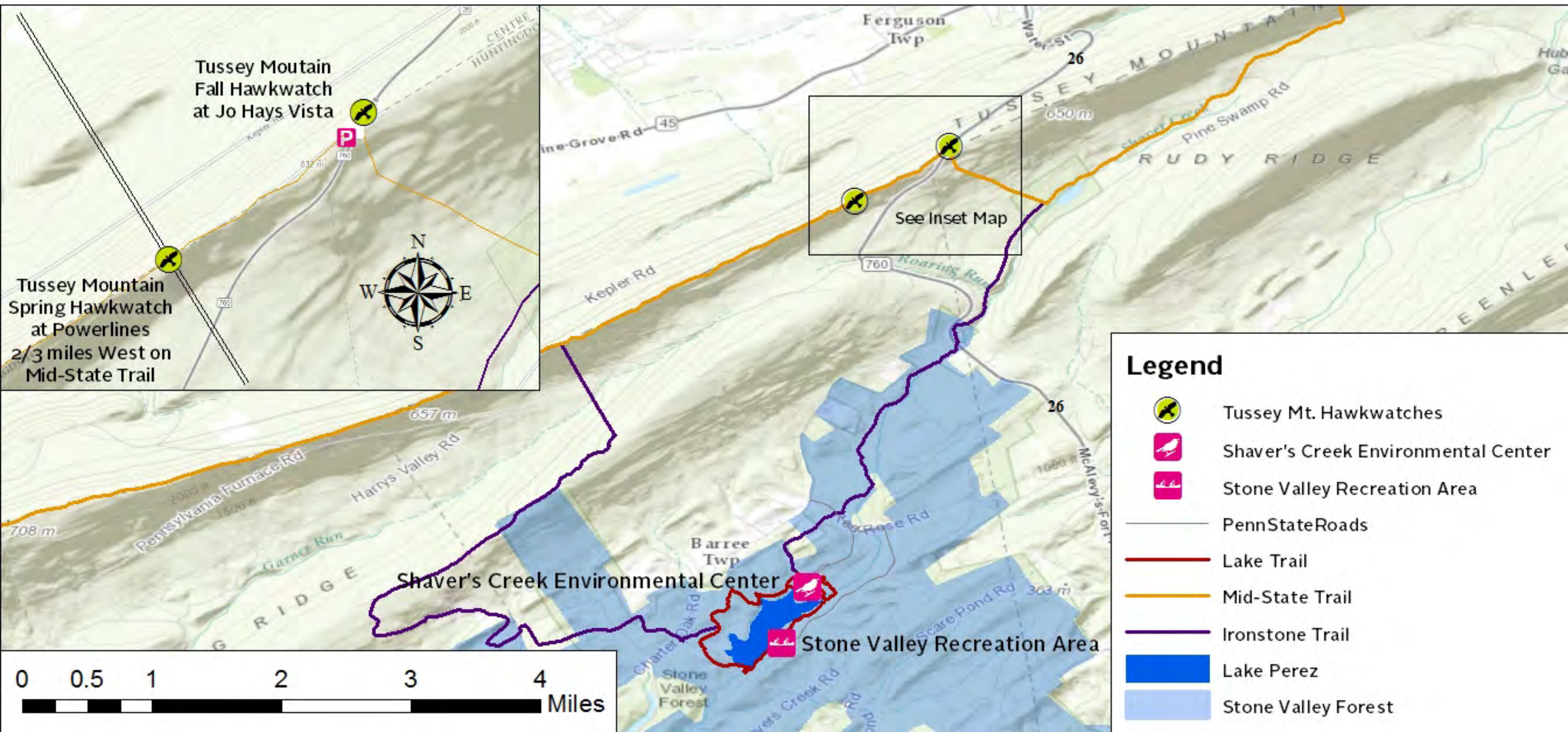
The State College area is widely known for the home of Penn State University, rich farming valleys, rolling ridges, meandering streams, and acres of state forest. Professors, students, hikers, farmers, and naturalists from this area have met as the State College Bird Club, which began in 1941 and has provided a forum for beginners and experts alike to share local avian natural history with each other.

From Jo Hayes Vista, the route to the Tussey Mountain hawkwatch follows the Mid State Trail along the top of Tussey Mountain. The Mid State Trail, 325 miles (523 km) in length, is one of the longest and most remote hiking trails in Pennsylvania, connecting the state's southern border (south of Everett) and its northern border (north of Wellsboro). The Mid State Trail is known for its great views from ridge promontories.

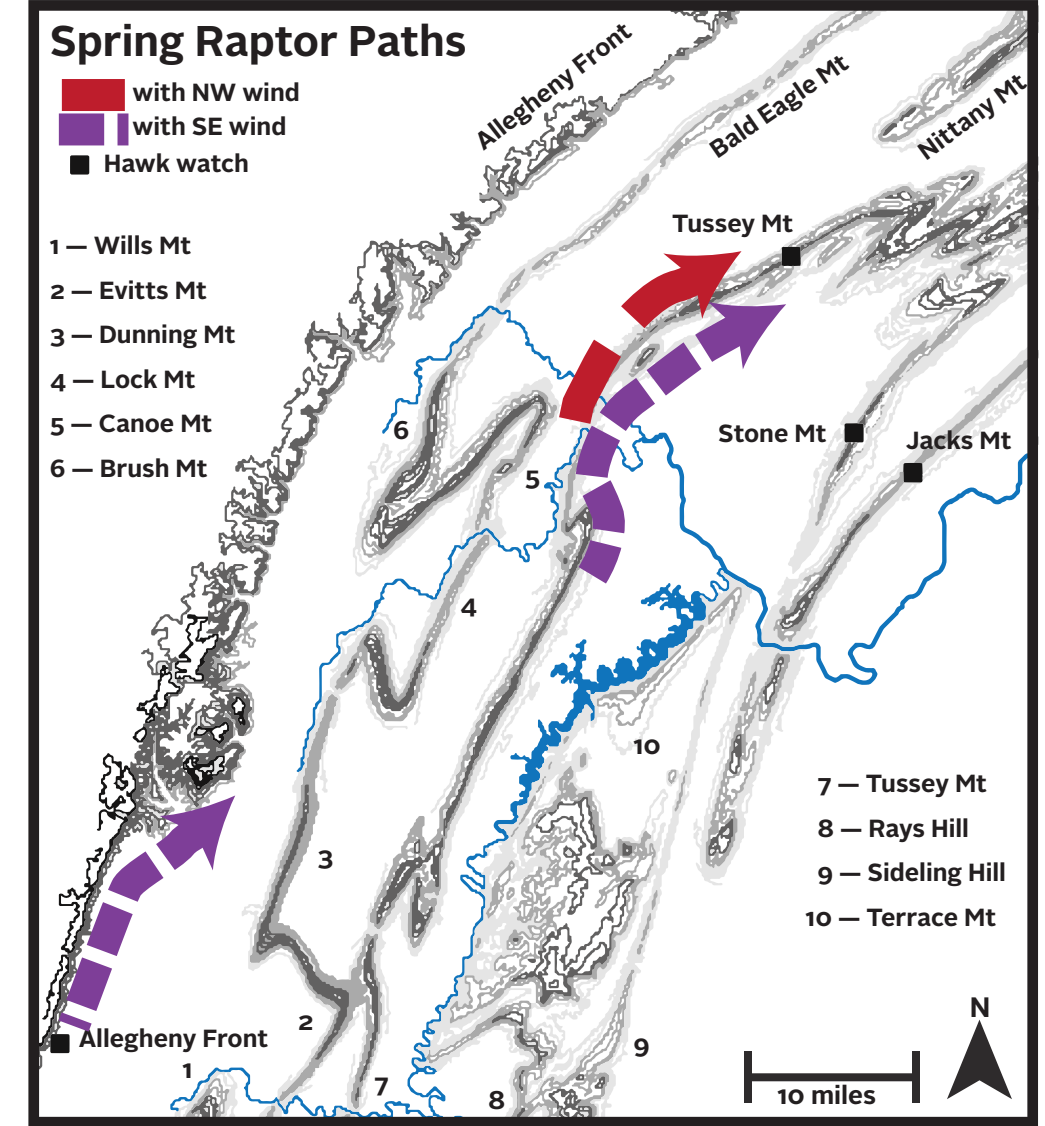
Tussey Mountain's rock is Tuscarora Sandstone, whose hardness makes it relatively resistant to erosion, which is why it exists here today. Several hundred million years ago, a 10,000 foot-tall mountain soared from here over what is now a valley to the north; the northern end of this mountain is today's Allegheny Front, 13 miles away. Note that the larger rocks at the hawk watch site angle upward to the north. Today's ridges are the remnant lower flanks of a once-taller mountain that eroded away eons ago. Migrating raptors wind-surf on updrafts deflected off the steep slopes of Tussey Mountain and thus minimize the expenditure of precious energy. They often follow the southwest-to-northeast-oriented ridge for a long way before leaving it to head more directly north. The best winds for raptor migration are strong and perpendicular to the ridge, though migrating raptors often utilize what is available if they are ready to go.

Bald Eagle Mountain is the next ridge to the north and the northern-most ridge in the Ridge and Valley province of the Appalachians. Looking north from the hawk watch or Jo Hayes Vista, you can see the I-99 road-cut through Bald Eagle Mountain. As seen from the south looking north, Bald Eagle Mountain is not very high; as seen from the north looking south, its height is similar to Tussey Mountain. Bald Eagle Mountain is one of the more important regional migration routes south for fall-migrating Golden Eagles, probably because of its northern-most placement in the Ridge and Valley.

The Scotia Barrens, otherwise known as State Game Land 176, is a naturalist haven for breeding birds, migrating salamanders, and diverse flora. This tract of land encompasses 6,211 acres of pitch pines, scrub oak, white oak, black oak, and aspens. The adjacent 10-acre pond has been known to attract rails and bitterns during migration season. This habitat plays a key role in breeding birds such Eastern Whip-poor-wills, Chestnut-sided and Golden-winged Warblers, Indigo Buntings, American Woodcock, Ruffed Grouse, and many others. It also falls into a highly recommended area to explore during fall migration, where at times birdwatchers can tally anywhere from 12 to 15 warblers in a single morning.



Tussey Mountain is part of the Ridge and Valley region within the Appalachian Mountains. The ridges geological feature with high peaks enables migrating raptors to use the mountain as a "free ride" to and from their wintering and nesting grounds. Individual flight paths are tied to these ridges and depending on wind and sky conditions one may predict the general flight path of migrating raptors. For Tussey Mountain, moderate S/SE and NW winds are known to produce the larger flights, but one must use caution and scan frequently both sides. Many individuals are known to fly perpendicular to the ridge or off ridge (opposite of wind direction).



Figures from *Birds of Central Pennsylvania* by Nick Bolgiano and Greg Grove

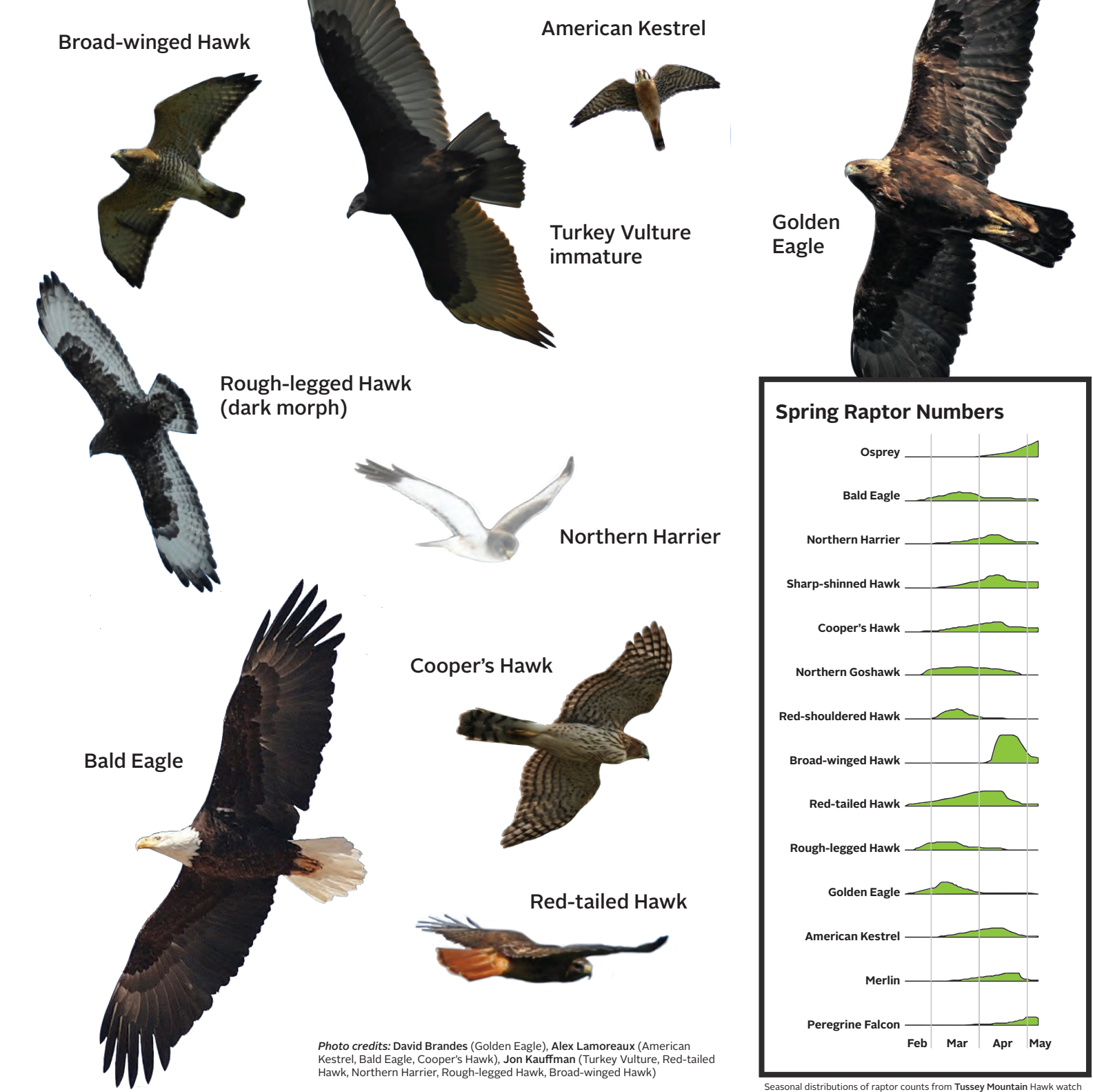


Photo credits: David Brandes (Golden Eagle), Alex Lamoreaux (American Kestrel, Bald Eagle, Cooper's Hawk), Jon Kauffman (Turkey Vulture, Red-tailed Hawk, Northern Harrier, Rough-legged Hawk, Broad-winged Hawk)

