For the September monthly meeting of the High Country Audubon Society, Tanya Alley Cline will be presenting on how people can learn to coexist with black bears living in rural neighborhoods. This year has been a very active year for black bears in the mountains and HCAS President Jesse Pope hopes this program will help educate the community about how to safely live in close proximity to bears. The meeting is open to the public. Alley Cline graduated from Appalachian State University with a bachelor's degree in Ecology and Environmental Biology and has worked at Grandfather Mountain's Animal Habitats for over 12 years. She was manager of the department for nine years, until stepping into an assistant manager position earlier this summer in order to spend more time at home with her children. Her role at Grandfather Mountain has given Alley Cline a wealth of experience in handling bears in captivity as well as dealing with wild bears in the area. She often receives calls from people around the High Country asking her what to do when they see a bear around their house.

Some of the main topics Alley Cline plans to discuss during the presentation are bear behavior, how to handle oneself during an encounter and bear population management. She welcomes any questions and hopes to set the record straight on any misconceptions about black bears. "A tough one is people thinking that bears, and especially the cubs, are cute and cuddly," said Alley Cline. "Even the ones in captivity at Grandfather are wild animals."

Working at Grandfather, Tanya has been able to become very acquainted with the Mountain's famous bears. She counts their personalities as her favorite thing about the job. "Each one of them is an individual with different characteristics to his or her personality. It's just fun to watch them interact with each other, with humans and when they are alone."

The meeting will take place Tuesday, September 15 at 6:30 p.m. at the La Quinta Inn and Suites in Boone. Come early and enjoy the company and conversation of fellow High Country Audubon Society members.

A $5 donation is requested with field trip attendance. All events and meeting times are subject to change. For updated information please visit http://www.geocities.com/hcaudubon.

**THE BEAR ESSENTIALS: Living with Black Bears in Your Community**

![A black bear from Grandfather Mountain's Animal Habitat. Photos by Helen Hopper/GFM](image)

**CALENDAR OF EVENTS**

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<th>September</th>
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<tr>
<td>13</td>
<td>Mahogany Rock Field Trip All Day</td>
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<td>15</td>
<td>Monthly Meeting 6:30 p.m.</td>
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<td>17</td>
<td>Mahogany Rock Field Trip All Day</td>
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<td>Ridge Junction Field Trip All Day</td>
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<th>October</th>
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<td>Monthly Meeting 6:30 p.m.</td>
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<td>24</td>
<td>Carolina Raptor Center Field Trip All day</td>
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<th>November and December</th>
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<td>Nov 17</td>
<td>Meeting and Movie Night 6:30 p.m.</td>
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<td>Dec 5-7 or 13-15</td>
<td>Pungo Lake, Lake Mattamuskeet and Pea Island Field Trip Dates and Time TBD</td>
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**FUN FACTS**

**Broad-winged Hawk**

- A recent study attached satellite transmitters to the backs of four Broad-winged Hawks and followed them as they migrated south in the fall. The hawks migrated an average of 4,350 miles to northern South America, and traveled an average of 69 miles each day.
- The Broad-winged Hawk completely leaves its breeding grounds in the fall and winter. Huge numbers of migrating broad-wings can be seen at hawk watches across the East. It usually migrates in large flocks or "kettles" that can range from a couple of individuals to thousands.
- The Broad-winged Hawk comes in two color phases: The common light phase and a rare dark phase. The dark form is entirely sooty brown with a tail like the light morph, and with whitish flight feathers contrasting with dark wing linings. It is found primarily in the northwestern part of the range, and accounts for less than 0.1% of migrants observed.

Info and picture found on [http://www.birds.cornell.edu](http://www.birds.cornell.edu).
Hawk Watching at Mahogany Rock

High Country Audubon Society is offering two trips to Mahogany Rock this September for hawk watching. The scheduled dates are September 13 and 17.

Mahogany Rock is the premier hawk watching site in North Carolina. It’s located in Alleghany County, just north of Stone Mountain State Park and on the Blue Ridge Parkway at milepost 235.

A previous HCAS trip to Mahogany Rock  
Photo by Jesse Pope

Mahogany Rock is located on a sharp ridge line that runs east to west, with valleys to the north that funnel the raptors over this long ridge. The birds ride the thermal air currents along the way and southward over Stone Mountain. Some days, during mid-September when raptor migration is at its peak, thousands of Broad-winged Hawks are seen from Mahogany Rock.

Other interesting raptors are seen as well including Golden Eagles and Bald Eagles, Cooper’s and Sharp-shinned Hawks and even Northern Goshawks and Northern Rough-legged hawks.

This year is a difficult year for Jim Keighton, the official counter for Mahogany Rock Hawk Count, after losing two of his most dedicated volunteers. During this past year the High Country lost two great birders and conservationists, James Coman, founder and director of the Blue Ridge Rural Land Trust and Peter Zwadzky, former president of the Blue Ridge Bird Club. Zwadzky was Keighton’s co-watcher almost every day during the September through November hawk migrations.

It’s a very difficult task to be at Mahogany Rock every day during the migration to count, and having volunteers to help out is incredibly important.

“Recently, Jim has requested more volunteers for the fall to help fill the void associated with the absences of his two fellow bird watchers. If you get a chance to get out and help record the raptors, please do so and make sure to tell him you’re with the High Country Chapter,” said HCAS President Jesse Pope.

Pope added that supporting this fellow bird club, the Blue Ridge Birders, is very important to helping them continue their tremendous efforts toward bird conservation and education in the Blue Ridge Mountains.

The first planned trip to Mahogany Rock will be led by Jesse Pope on Sunday, September 13. Please meet Pope at Mahogany Rock, Blue Ridge Parkway milepost 235, at 9:30 a.m. Pope encourages those wanting to carpool or caravan for this trip to use the group’s Yahoo! website to coordinate.

Anita Clemmer will lead the trip out to Mahogany Rock on Thursday, September 17. High Country Audubon Society members can meet at the Food Lion in Deep Gap off Hwy 421 at 8:00 a.m. to carpool or caravan. Those interested can also just plan to meet the group at Mahogany Rock at 9:30 a.m.

We hope to see you there!

Ridge Junction Field Trip

The High Country Audubon Society is offering many field trip opportunities in September. The last one of the month is a trip to Ridge Junction Overlook on the Blue Ridge Parkway September 26. This spot is a premier site for migrating birds.

“Literally thousands of songbirds can be seen from this location on any given day in September,” said HCAS President Jesse Pope. Ridge Junction is located at milepost 355.5 on the Parkway, just south of Mt. Mitchell. It is located 11 miles south of the Parkway junction with NC 80 and 25 miles south of Spruce Pine.

The topography plays a vital role at Ridge Junction, making it a wonderful place to see the fall migration spectacle. Two large ridges join at Ridge Junction, giving the area its name, and creating a huge funnel from the north with 6,000 foot peaks on either side. Ridge Junction is the lowest point in which birds from points north can cross the large peaks.

Birders can literally sit in a lounge chair with binoculars and watch birds fly across the ridge. Most of the birds are
MEMBERSHIP INFORMATION

An annual membership to the High Country Audubon Society is $10 per person and due June 1 of each year. Membership and support gives you access to the group’s listserv and the HCAS e-newsletter High Country Hoots. Mail check and information (name, address, telephone number, e-mail) to:

High Country Audubon Society
Attention: Membership Dues
PO Box 3746
phenomenon has evolved because the benefits have outweighed the costs whether by virtue of greater reproductive success in the insect-rich temperate zone or increased survivorship over the winter in the warm tropics.

Nonetheless, death during migration takes a heavy toll. It is estimated that half of all migrants heading south for the winter will not return to breed in the spring.

Predation and bad weather are two natural causes of mortality during migration. Collisions with tall buildings, windows, and other structures; being shot or trapped by hunters; and getting struck by automobiles are a few of the numerous human-made dangers. The continued loss of degradation of stopover habitat, however, is potentially the greatest threat of all.

Stopover Hot Spots

A consideration of the movement patterns of songbirds and shorebirds as they migrate across North America reveals where, on a broad scale, many of the important stopover areas are during this portion of the trip.

Songbirds returning from Latin America to breed in the eastern United States and Canada take either an overland route through Mexico or an overwater route across the Gulf.

For the birds that make the minimum 18-hour flight over the water, the coastal woodlands and barrier islands along the northern Gulf coast mark the first opportunity for landfall. This coastal area therefore contains key stopover sites for many migrants. The remainder of their trip northward consists of a series of nocturnal flights, each lasting four to six hours and spanning an average of 50-75 kilometers (30-50 miles). These flights are punctuated by stopovers ranging from one to five days.

As the birds move north in waves, they fan out across the eastern U.S., feeding on the all-you-can-eat buffet of insects that hatch out in synchrony with the unfurling of new leaves. This broad-front movement pattern means that songbird stopover sites are widely dispersed across the wooded areas of the eastern U.S. in the spring.

In the fall, the Atlantic coast takes on greater significance as a migration highway. Migrant traffic is particularly heavy along the coast from southernmost Canada to North Carolina, as many birds depart from along this stretch of nonstop flights over the western Atlantic Ocean to the Caribbean and points farther south.

Prevailing northeasterly winds make such marathon flights possible. Bottlenecks of migrating birds occur at the tips of the Cape May and Delmarva peninsulas as birds funnel into these relatively small land masses to refuel and await good weather before crossing the Delaware Bay and the Chesapeake Bay.

These peninsulas, therefore, harbor important stopover sites. For those birds heading south in the fall across the Gulf of Mexico, the Gulf coast is again an important area for stopovers.

Stopover sites in a large portion of the western United States are restricted to relatively defined areas. Songbirds looking for stopover sites in this part of the country rely heavily on shelter belts and hedgerows in agricultural areas, and desert oases and riparian corridors in the more arid regions.

In the fall, higher elevation sites—especially mountain meadows—become important because of the abundant populations of insects which peak late in the season. Also in the fall, at lower elevations, foothill riparian areas provide important fruiting plants for birds such as tanagers and grosbeaks.

Critical stopover sites for shorebirds are easier to pinpoint because migrating shorebirds congregate conspicuously at a number of key locations across the globe. In North America, the following stopover sites each support at least several hundred thousand shorebirds every year:

- the Cooper River Delta in southern Alaska;
- Grays’ Harbor in Washington;
- the Bay of Fundy in Nova Scotia and New Brunswick;
- the Cheyenne Bottoms in Kansas;
- the Delaware Bayshore of New Jersey and Delaware;
- and the prairie pothole region of the northern U.S. and southern Canada.

These sites, along with a handful of others, are cornerstones of the Western Hemisphere shorebird migration system.

The Hilton versus the Bates Motel: Quality Differences in Stopover Sites

Unless constrained by bad weather or insufficient fat reserves, birds are selective and they will search for a preferred habitat type in which to stop over. When and
where a migrant makes a stopover, and the length of time spent at a particular stopover site, depends on several factors, including the condition of the bird (especially the amount of fat reserves), weather, wind direction, availability of a suitable place to land, and habitat quality.

Based on observations made of migratory landbirds arriving on the northern coast of the Gulf of Mexico, researchers from the University of Southern Mississippi have shown how these factors interrelate.

If the winds are from the south and the weather calm as the birds reach the coastline, most will continue flying farther inland, if they have sufficient fat reserves. Those that promptly stop in the coastal forests under such fair wind and weather conditions do so because they are running out of steam, i.e., fat.

When winds are from the north or there are thunderstorms in the area, most birds, whatever their fat levels, will be forced to land along the coast. Birds with lower energy reserves will remain in the stopover area for more than a day in order to put on more fat, while those in better condition will set off again the night following their arrival, provided the wind and weather are favorable.

The same researchers found that birds that make stopovers on the Louisiana coast gain weight quickly. The average stopover there is two days and the birds gain 3-5% of their body weight per day. Birds of the same species that land on islands off the coast of Mississippi tend to be in poorer condition than those that land on the Louisiana mainland, and yet most birds leave the islands the night following their arrival.

Those that stay remain for one or more days, but rarely do they gain weight. The difference between whether the birds stay or quickly move on, and whether those that stay gain weight or not, is due to the quality of the habitat.

The vegetation differences between the two locations mean differences in the types of insects that are available as food: the insects adapted to the tough, dry needles and leaves of the Mississippi pines and shrubs are less digestible and lower in caloric value than the insects—especially the moth larvae—which are abundant in the more lush Louisiana forests.

These findings demonstrate that if appropriate habitat is not available for a needed stopover, birds must either fly farther, even if a weakened condition makes it unlikely that they will survive, or remain in poor habitat and risk starving or becoming easy prey for a predator.

The Diagnosis

In his book, Where Have All the Birds Gone, John Terborgh states “Migration is a chain whose strength is that of its weakest link.” Since birds spend as much as half of the year or more en route between breeding grounds and wintering areas, the habitats they depend on during this period are critical links to their survival.

Loss and degradation of stopover habitat not only can result in more birds dying while on migration, but it can also have serious repercussions in terms of nesting success. For example, birds heading north are already constrained by the relatively short amount of time available to get to the breeding grounds, establish a territory, pair with a mate, and get on with the further demands of raising young. Late arrival, or arrival in poor condition, on the breeding grounds because of inadequate food and rest en route, is likely to jeopardize a bird’s ability to reproduce.

The Prognosis and the Prescription

The importance of coastal habitats as stopover sites for birds is pitted against the desirability of coastal areas as prime real estate. Half of the total United States population now lives within 50 miles of the coast. Projections for the year 2010 predict this number will increase by 60%. This population pressure, combined with accelerating rates of coastal erosion and rising sea levels caused by global warming, poses a monumental conservation challenge.

Inland stopover areas will continue to be affected by land use policies, especially with regards to development, ranching, agriculture, forestry and oil exploration. A balance between economic needs and the needs of migrants will have to be sought in order for the grand phenomenon of avian migration to continue. Economic growth based on birdwatching and ecotourism is proving to be a successful alternative in a number of key stopover areas across the globe.

The Western Hemisphere Shorebird Reserve Network, the American Bird Conservancy in conjunction with the National Audubon Society, and the Nature Conservancy have programs aimed at identifying and protecting critical stopover sites. If you enjoy the spectacular sights and melodic sounds of the many migratory birds that grace us with their presence each year, do what you can to support these international efforts.

Private landowners can contribute to the cause by providing appropriate trees and shrubs and maintaining wetlands on their property. Numerous local and national organization, such as the National Wildlife Federation, can offer guidance on how to make your yard hospitable to birds. Collectively such efforts can have a great effect. Remember that reverberations from what happens locally to migratory birds can be felt across the hemisphere!