



Dedicated to providing useful information to Tree Farmers and family forest owners.

FOREST RAPTORS: THE ACCIPITERS

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The Pacific Lumber Company Timberlands

Why is that crazy bird “kakking” at me?

Have you ever been walking through the woods when a bird flew in and started “kakking” at you? By “kakking” I mean a loud repetitive “kak, kak, kak, kak, kak”; usually by a bird who appears agitated, hopping or flying from branch to branch while staying fairly close to you until you leave “their” area.

Many birds of prey are known to exhibit this type of, dare I say - rude behavior, but the Accipiters or “Bird Hawks” are one of the likely culprits you might encounter when you’re walking through the woods in Northern California. This type of behavior is an evolutionary response by the bird that is intended to get your attention to warn you that you are too close to their nest. If you encounter a fairly aggressive bird this “kakking” may also turn into a swoop or dive at your head. Go to www.junglewalk.com and search for hawks in audio links to hear what these birds sound like.

The Accipiters include the smaller Sharp-shinned hawk, the medium-sized Cooper’s hawk, and the larger Goshawk. In general, the Accipiters are long-tailed hawks with short, rounded wings. They are considered forest interior species that hunt among the trees and brushy thickets where they will try to strike smaller birds that they flush from the trees and brush. Their flight pattern is distinguished by short quick beats and glides; they are not often seen soaring like eagles or red-tailed hawks. These hawks will sit on a log, stump, or other structure and pluck the feathers off their prey. The term for this is a “plucking post”, which can often be found in the woods and give you an idea that one or more of these species is present. They also show very strong site fidelity to a nest stand, meaning that they will return to the same stand to nest year after year. If you put out bird feeders in your

backyard or on your ranch you may see Sharp-shinned or Cooper’s Hawks trying to prey on the birds visiting your feeder.



Figure 1. Plucking post with jay feathers.

Sharp-shinned hawk (*Accipiter striatus*)

The sharp-shinned hawk is the smallest of this group and is approximately pigeon size. It is a California Species of Special Concern and breeding populations of this species have shown a significant decline according to Breeding Bird Survey data collected between 1980 and 2005. Habitat modification such as timber harvest and development are thought to be some of the threats affecting this species. The range of this species is from the Oregon border south to central California during the breeding season (March through August), otherwise throughout the state from September to April. Their primary prey is small birds such as sparrows or

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FOREST RAPTORS

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warblers but they will capture prey as large as a jay or woodpecker and will also eat small, rodent-sized mammals. Both the breeding and wintering habitats of this species have been characterized as woodlands of



Figure 2. Adult sharp-shinned hawk.

young or open forests interspersed with a variety of other plant species. Sharp-shinned hawk nesting habitat can be retained along riparian corridors within watercourse protection zones, and in a mix of forest successional stands throughout your tree farm.

This hawk tends to favor younger forest stands of mixed conifer and hardwood, and will build a broad, flat stick nest next to the trunk or in a large crotch, usually within or at the bottom of the live crown. They typically start nesting by the middle to end of April with the young leaving the nest by the middle of July. Nests of all accipiter species are easiest to find in June or July when there is typically a lot of “whitewash” or fecal matter that looks like it



Figure 3. Sharp-shinned hawk nest.

came from a can of white spray paint concentrated near and around the nest. Another indication that you’re near a nest is the presence of “plucking posts” which are often found within 100-200’ of the nest. So if you encounter a “kakking” bird, see a concentration of whitewash and find a plucking post or two, take a look around and you may locate an active accipiter nest. If you find a nest during the breeding season you can help them successfully raise their nestlings by maintaining the nest and a surrounding buffer until the young are able to fly and hunt on their own. For both the Sharp-shinned hawk and Cooper’s hawk the Pacific Lumber Company typically provides disturbance buffers ranging from 300-500’ (based on topography) to provide disturbance mitigation for these species during the breeding season.

Cooper’s hawk (*Accipiter cooperi*)

The Cooper’s hawk is slightly larger than the Sharp-shinned hawk, closer to the size of a crow but otherwise very similar in appearance to the sharp-shinned hawk. Old-timers in the region often referred to this raptor as the “Bullet Hawk” because they fly so fast and straight through the woods when hunting their prey. Cooper’s



Figure 4. Adult Cooper’s hawk..

hawks are a California Species of Special Concern whose breeding population has also declined in recent years (BBS survey results 1980-2005). This species ranges throughout the state, but is less common in the northwest and southeast. Nesting habitat of this species in California is most frequently in dense stands of live oak, deciduous riparian stands, and other forested habitats near water. Cooper’s hawks forage chiefly on small to medium sized birds, such as woodpeckers, jays and quail but will also eat small mammals, reptiles, amphibians and insects. They typically start nesting in April with the young leaving the nest by the end of July.



Like the sharp-shinned hawks they build a stick nest (2-3' wide) next to the trunk of either a hardwood or conifer, with at least two branches serving as horizontal supports underneath the nest, in a crotch formed by three or more main branches, or on a growth such as mistletoe or a witches broom. The nests of both species may be concealed in the foliage of the tree crown.



Figure 5. Cooper's hawk nest.

When you are laying out timber harvesting plans for your tree farm, mitigation measures for this species can include maintenance of habitat diversity over time through various forest successional stages, retention of the hardwood component of the stands, and riparian protection measures. If you find a nest of this hawk during the breeding season you can help them successfully raise their young by maintaining the nest and a 300-500' disturbance buffer around the nest tree until the young are able to fly and hunt on their own.

Northern goshawk (*Accipiter gentilis*)

The Northern goshawk is the "king" of the Accipiters. It is a larger, robust hawk, similar in size to a Red-tailed hawk, with a wingspan of 3 ½ to 4 feet. The Goshawk is a California Species of Special Concern, a Board of Forestry sensitive species, and a Forest Service Sensitive species. This species ranges throughout the mountains of California, with most nests having been observed in mid-late seral conifer stands inland from the coast.

Because the Goshawk tends to be a very aggressive nest defender, many nest sites in California have been located by timber marking crews or fallers. The goshawk preys on birds from robin to grouse size, and small mammals of squirrel to rabbit size. Snags, dead topped-trees, and large

downed logs may be used for plucking posts or hunting observation points. Nests are often in crotches of trees, or trees with structural defects. Goshawks tend to select the larger trees in a stand for their nest site, often building the nest in a tree that may have been left from previous harvests.

Similar to the other Accipiters, timber management related activities have the potential for impacts. Logging activities could lead to impacts through habitat modification, or disturbance of undetected nest sites. Maintaining habitat diversity through time, and the retention and recruitment of snags, hardwoods, and downed logs are all general mitigation which will maintain essential



Figure 6. Adult Goshawk..

habitat elements of this species and its potential prey. If you happen to find a Goshawk nest in your tree farm you should inform your local Department of Fish and Game office to determine the appropriate forest management for your area.



Figure 7. Potential goshawk habitat.

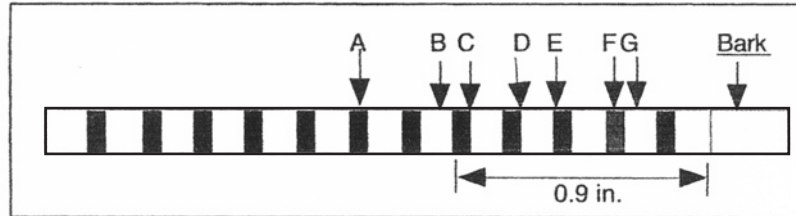




TREE FARMER QUIZ

*Tree Farmers should have some knowledge of tree growth calculation and projection.
You will have to bore some trees to obtain growth information.*

Using your increment borer, you extract the core illustrated below.



- 1. How many years growth does the increment core represent?*
- 2. Referring to the increment core, which letter(s) correspond to “spring or early” wood?*
- 3. Which letter(s) correspond to “summer or late” wood?*
- 4. Between what two letters is one year’s total growth?*
- 5. What is the 5-year radial increment of the core?*
- 6. When considering 10-year growth periods, what is the common basic assumption made about past growth period, relative to future growth period?*
- 7. You use your D-tape to measure a tree that you bored to get the core shown above. The DBH is 17.8 inches. What is the expected DBH of this tree in ten years? Assume that bark thickness remains constant.*
- 8. Rounding all tree diameters to 2-inch DBH classes, what is the annual percentage growth of this tree being considered? Use the Volume Table shown below.*

<i>DBH</i>	<i>Volume (Bd Ft)</i>
14	100
16	200
18	290
20	340
22	460
24	580

ANSWERS: (1.) 12.5 years (2.) B and G (3.) A and F (4.) C and D (5.) 5 years = 0.9 inches (straight off the core) (6.) Most of the time. Foresters assume that the past 10-year growth rate will continue unchanged for the next 10 years. However, this is an over-simplification and many current equations/models can adjust the growth prediction based on differentiating the usually decreasing rate of change between growth rings. (7.) 17.8 inches + (1.8 inches)*2 = 21.4 inches + additional bark growth. (8.) Round 17.8 inches to 18 inches, round 21.4 inches to 22 inches; Volume 18 inch tree = 290 bf; volume 22 inch tree = 460 bf; 460-290/290 = 170/290 = 0.58 = 58% per 10 years = 5.8% per year.



Shingletown Field Tour Covers Thinning, Pruning, Pole Logs



Logs to be manufactured into poles must meet certain specifications.

On Saturday, June 16, 2007, Tree Farmers and Forest Landowners joined in a field tour of the tree farm owned by Dennis Bebensee and Dick Schoenheide. Following a brief overview and history of the Shasta County ownership by Dennis, he then led us on a cursory field trip showing various timber stand treatments including thinning, pruning and current “pole” logging. Dennis and Dick are actually falling and skidding the poles themselves. The logs will be trucked to the Sierra Pacific Industries mill in Anderson. SPI manufactures the logs into poles and sells the poles “untreated”. The day was concluded with BBQ tri-tip and hot dogs for the younger ones.



Hal Bowman tells of logging history and the timber inventory on the Bowman/Prielipp Tree Farm.

Nile/Bowman-Prielipp Field Day

July 21, 2007 – The Saturday field day, where two Tree Farms in Siskiyou County were toured, was well attended by approximately 30 individuals. On Jim Nile’s tree farm we listened as he discussed how he controlled oak stumps to keep them from sprouting by covering the fresh stumps with black plastic. On the Bowman/Prielipp tree farm, Hal talked of non-timber income from a cell phone tower that had been erected on a ridge overlooking the Sacramento River Canyon. The two properties are managed with Non-Industrial Timber Management Plans. During lunch, a local historian presented a very interesting historical sketch of the early days of the Southern Pacific Rail Road in the Dunsmuir area and John Wilson, Garmin Distributor, discussed the latest Garmin GPS unit.



Jim Nile discussing Basal Area from the center of his permanent plot.

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California Tree Farm News

FOREST LANDOWNERS OF CALIFORNIA

Tree Farm Field Tour in Toulumne County

Saturday, September 7, 2007 at 9:00 AM

Tree Farm Inspector, Leon Manich, will lead this field tour. We will meet at the Groveland Community Park on Highway 120. The park, also known as Mary Lavaroni Park, is located just East of the Groveland Fire Station on the North side of Highway 120. Public Restrooms are available here.

The field tour will begin in the Groveland area and we will be visiting several private ranches. We will see several projects recently completed that include clearing and planting and fuel reduction. One ranch has projects dating back to 1991 that include planting, brush control, pre-commercial thinning, and commercial harvesting.

The ranches are within an area designated for fuel break construction using prop 40 funding over the next several years.

We will travel to Sonora and have lunch and review activities on the Kensinger Tree Farm. The drive will be about an hour between places.

Lunch sandwiches and drinks will be provided by the California Tree Farm Committee. To know the lunch count, please RSVP to either:

Leon Manich at (209) 588-1920 or George Belden at (530) 229-3798 or e-mail at lake1777@pacbell.net

Receiving the Tree Farmer Newsletter Electronically

The Tree Farm Committee can save money on both printing and postage, if we can send it electronically. If you want the newsletter via the computer, please send your e-mail address to: lake1777@pacbell.net.



Tree Farm Mission

To promote the growing of renewable forest resources on private lands while protecting environmental benefits and increasing public understanding of all benefits of productive forestry.