

Notes based on Joe Morlan's Ornithology class lecture February 10th, 2010.
Joe Morlan is not responsible for these notes, any errors or omissions in them are mine.

An **apparent hybrid sapsucker Red-breasted x Red-naped** was discussed. See my notes for the Thursday class, February 11th, when Joe had seen photos and the bird was discussed in more detail.

There have been reports of **Grasshopper Sparrow** in the area on several CBCs.

The Grasshopper Sparrow is a very localized bird in CA, more so than it is over much of the eastern US. Our birds are a different subspecies.

For nesting they prefer hilly pastures that have been lightly grazed and which have either fences or small trees or tall weeds like the Cardoon.

The Grasshopper Sparrow is very difficult to study because it is fairly secretive.

It builds its nest on the ground. It does not flush from its nest or land on it. Instead it rodent-runs to or from the nest in a variety of different random directions, thus avoiding to reveal the nest's location.

The Grasshopper Sparrow winters in Mexico and is a summer visitor in the foothill regions around the valley of CA. Its status in the winter is unclear.

Our knowledge of Grasshopper Sparrow during the breeding season is based on locating singing males. They sound like an insect, a series of ticks followed by a very metallic longwinded buzz, hence their name. They sing from a perch and usually can be located. We mostly start to detect them when they sing in April, but there is a surprising number of March records. There are also several winter records. We don't know whether this bird actually migrates out of CA or not. They do not come to feeders. We have big problems to detect them when they are not singing.

The species is also known to be erratic and eruptive during the breeding season. Sometimes there are big incursions of Grasshopper Sparrows that bring them to places like Pt Reyes, they are everywhere. It seems to have something to do with drought and rainfall, birds apparently get pushed away out of more arid areas towards the coast.

PBS recently sent a **documentary on hummingbirds** that is available online.

Woodpeckers

Most species of woodpeckers do rhythmic drumming as a substitute for song. They pick the most resonant piece of wood for that. Both males and females do it.

Woodpeckers have a long, extensible tongue to retrieve wood boring insects. Many species can extend their tongues three or four times the length of the bill. That is made possible by an elongated set of bones and muscles that controls tongue movement, the so called hyoid apparatus. It wraps around the entire skull and coils around one of the eyes or hooks into one of the nostrils. Woodpeckers have very long and spiky central tail feathers which they use to hitch themselves up vertical tree trunks. Most birds molt their tail feathers starting with the central pair and progressing outwards. Woodpeckers do not do that. They start with the second pair, then continue outwards and finally molt the central pair. That way they have a whole set of new tail feathers during the critical time when they are growing in the keystone central tail feathers. This adaptive strategy is also exhibited by the unrelated Brown Creeper which uses its tail in the same manner. Woodpeckers have a zygodactyl toe arrangement: two toes to the front and two to the back.

There are two different ways for birds to scratch their heads. Direct head-scratching in which the bird brings up the leg in front of the wing and indirect head-scratching in which it droops its wing down and lifts its leg up over the top of the wing from behind. The difference is thought to be non-adaptive and has therefore been used in the past for taxonomic purposes. Most woodpeckers scratch their head indirectly.

Red-headed Woodpecker

OCCURRENCE

Formerly widespread throughout hardwood deciduous forests in the eastern US and through the Midwest. Particularly in the Midwest and parts of the Southeast it still persists in fairly decent numbers, mostly in areas where there is a substantial amount of forest. It has been driven out of much of the northeastern part of its range by European Starlings, which continue to increase and evict Red-headed Woodpeckers from their nest holes. The Red-headed Woodpecker does not defend its nest hole.

Likes to forage high.

Fairly shy.

Partly migratory.

Has occurred in CA on fewer than five occasions.

FIELD MARKS

Males and females look alike.

Whole head red.

Black back, white rump and upper tail coverts, white belly.

White secondaries that also show up conspicuously on the folded wing.

Acorn Woodpecker

OCCURRENCE

Two essentially resident populations, one in CA and Oregon and one in the mountains of New Mexico, Arizona and Mexico.

Very locally distributed around the Bay Area. One of the best known colonies is at the Bear Valley Visitors Center at Pt Reyes. Some other sites are at Big Basin Redwoods State Park, Briones Regional Park, Arastradero, Stanford University campus, Sunol Regional Park.

Any place that has Acorn Woodpeckers in it has lots of other birds also, like cavity nesting birds that are depending on old woodpecker holes, such as bluebirds, wrens, chickadees, titmice. If you remove old snags you will have fewer woodpeckers and also less diversity in other types of birds.

ACORN GRANARIES

Occurs primarily in large to medium-sized groups. The groups share nesting activity and they store acorns in what is called a granary. They create a granary by digging holes in the bark of a dead or live tree and pounding acorns into those holes. Oak wood is very hard; usually granaries are not in oak trees. Oaks are notoriously unreliable in producing oak masts, the acorn crop varies dramatically from year to year. As a way of taking advantage of temporary abundances in the acorn crop and weathering temporary shortages they have evolved this strategy of storing the acorns. An acorn pounded into a hole in a tree could be easy pickings for a squirrel. However, these are pounded into a hole that is exactly the right size, so that it takes a woodpecker to extract the acorn; squirrels cannot chew the acorn out. The acorns shrink over time and get more

vulnerable to being stolen by jays and squirrels. At this point the Acorn Woodpecker takes the acorn out of that hole and puts it into a smaller one.

If there is a long drought and the acorn crop fails year after year after year, the granary may become depleted at which time the birds abandon their social communal life style and experiment with monogamy. The ability to change their social life style is called social plasticity.

There is an old myth that the acorns are being used to garden worms which the woodpeckers then eat, the "worm theory". That is not true. The woodpeckers eat the acorns.

COMMUNAL MATING SYSTEM

They have one of the most bizarre mating systems of any bird in the world. They are COOPERATIVE BREEDERS and live in groups composed of up to 6 COBREEDER MALES, 3 JOINT-NESTING FEMALES, and NONBREEDING HELPERS of both sexes.

COBREEDER MALES are brothers and/or fathers and their sons competing for matings with the JOINT-NESTING FEMALES, who are sisters or a mother and her daughter who lay their eggs in the same nest cavity. Offspring produced from this communal nest may remain in their natal group for several years as NONBREEDING HELPERS, during which time they help feed younger siblings at subsequent nests.

This kind of mating system is known as POLYGYNANDRY. All individuals within the group are close relatives except that cobreeder males are not related to joint-nesting females. INCEST AVOIDANCE is maintained because helpers only inherit and become cobreeders following REPRODUCTIVE VACANCIES when the breeders of the OPPOSITE sex die and are replaced by unrelated birds from elsewhere. Reproductive vacancies are often filled by a unisexual set of siblings who compete against other sibling groups in spectacular events called POWER STRUGGLES. Winners of power struggles become cobreeders in the new group; losers return home and resume nonbreeding helper status.

There is also a great deal of competition for reproduction within groups. Joint-nesting females even destroy each other's eggs, removing them from the nest during egg-laying and placing them in a tree where group members come and eat them. Since joint-nesting females are close relatives, birds are destroying eggs that are also related to themselves!

(From research mostly by Walter Koenig at Hasting's Preserve in Carmel Valley, a research station owned by UC Berkeley.)

FIELD MARKS

The ones in New Mexico have a smaller bill and a slightly different plumage from those in CA. They are more likely to have red on the breast.

Yellowish-white forehead.

Males have the top of the head red without any black in front of it.

Females black on top of the head, separating the red behind it from the forehead.

The young of both sexes look like males in that they have red on top of the head, but it is more pinkish in color.

Adult birds have light colored eyes, immature birds start out with dark eyes that become gradually paler.

White rump.

A small white patch in the wing that usually only shows up in flight.

Underparts mostly white, some dark across the chest and variable amounts of dark streaking on the flanks.

SOUNDS

Loud "Jacob, Jacob, Jacob"

White-headed Woodpecker

OCCURRENCE

Found in the western mountains. Throughout low to mid elevations in the Sierra Nevada. In the coastal ranges south to about Lake County, but fairly scarce in most areas. In the Transverse Ranges in southern CA. Gets up into the Cascades in Oregon and Washington. Does not occur in the Rocky Mountains.

Largely non-migratory.

Capable of excavating nest holes in live trees.

FIELD MARKS

A fairly small woodpecker.

White face, throat and crown.

Black back.

White patches in the wings.

The male has a red spot on the back of the head.

Juveniles of both sexes have a red spot on the top of the head.

VOCALIZATIONS

Call note to Joe indistinguishable from the sharp call note of the Hairy Woodpecker

Lewis's Woodpecker

Named in honor of Meriwether Lewis who collected the type specimen.

OCCURRENCE

Has declined in the Pacific Northwest and has also suffered declines locally throughout CA.

European Starlings take over the nest holes.

Formerly occurred all the way down to the bottom of Mines Road. By the 1980s they were pretty much restricted to the upper portions of Mines Road, especially the Santa Clara County area.

They still persist in San Antonio Valley (where Mines Road connects to the Mt Hamilton Road).

Somewhat migratory, occasionally show up as vagrants even to the east coast.

Are a bit erratic in the Bay Area. Have been found in the eastern Contra Costa area.

One time there was a group at Alpine Lake in San Mateo county.

FIELD MARKS

A fairly unique species that looks and acts quite different from any other woodpeckers.

Fairly large, a little bigger than a Hairy Woodpecker.

Looks all black on the upper parts, only in good light can you see the green gloss.

Beautiful rose-colored belly.

Dark head with a dark plum-red face, only visible in really good light.

Gray collar.

Broad rounded wings. The birds look like small crows in flight.

They will migrate in juvenal plumage which is lost some time within the first fall.

It has a much more muted pattern lacking the obvious gray collar.

Very quiet compared to other woodpeckers.