Notes based on Joe Morlan's Ornithology class lecture March 5th, 2009.
Joe Morlan is not responsible for these notes, any errors or omissions in them are mine.

We discussed the wintering **Worm-eating Warbler** which still is seen in Ferry Park in downtown SF. It is an extremely rare bird in CA, especially in northern CA and especially in the winter. It is on the California Birds Record Committee Review List, so everybody who has seen it should submit documentation to the committee. Photos are great, but some additional information is needed. Submit it even if other birders have seen it. You never know if anybody else submits anything and you also might contribute with additional information, things others have not observed. Also, it is good practice to look at a bird with the idea of maybe writing a description. It is a skill that can be useful, e.g. for CBCs or if you ever find a rarity and are the only one to see it. Their favorite food is spiders in rolled up dead leaves.

The book "The Rare Birds of California" is now on sale.

Red Crossbill

OCCURRENCE
Pretty widespread.
Does occur pretty regularly in parts of CA.
Probably regular, possibly resident in the Monterey Pines in SF.
Occur most regularly up in the Lincoln Park area, behind the Legion of Honor.
Another good place is Skylawn cemetery in San Mateo County on the summit of Hwy 92.
Their numbers fluctuate a lot.
Most easily detected either by their flight call or by a munching sound from the top of a pine tree and debris falling out of it.
Often they are social and move around in groups from tree to tree.

DIFFERENT CALL TYPES SPECIALIZE ON DIFFERENT CONIFER SEEDS
Crossbills have the tip of the bill crossed over, so that they can form gaps between the scales of pine cones and extract the seeds. They are specialists on pine nuts. Different pine cones are of different sizes and have different strategies. Different types of the Red Crossbill also have different bill morphologies. Some have rather small bills and feed on Douglas Fir and spruce cones, others have rather large bills to open the scales of some of the larger cones. They also vary in the structure of the horny palate in the upper mandible, which is adapted for holding the right type of seed while husking them.
The calls of the types specialized on different seeds are slightly different, Sibley delineates nine different call types based on research by Jeff Groth and Craig Benkman. We talk about types, not subspecies, because they do not have separate geographic ranges. Each call type is specialized for feeding on a single species of conifer, but they will also forage opportunistically on other species.

Joe thinks the ones we see in SF and in the Bay Area are mostly type 2.

NOMADIC
Crossbills being dependant on pine cones have evolved an eruptive and nomadic life style, because the pine cone crop in any given area is unreliable. The crop fails periodically and the birds will move into new areas searching for a better cone crop. Birds of the same call type with

the same bill morphology that specialize on one particular type of cones will stay together as a cohesive group. Different call types can meet in the same coniferous forest and overlap They take advantage of temporary abundances of food and will nest in an unpredictable way in an unpredictable location. Different types can breed in the same woodlot at the same time and not hybridize with each other. They travel together as a group and they remain genetically distinct from the other groups, there appears to be little or no gene flow between these different populations. Some people have proposed that these different types of crossbills should all be given species status.

SOUTH HILLS CROSSBILL

Type 9, which is found only in southern Idaho, has just gotten big publicity with the current issue of The Condor, in which a detailed study of type 9 crossbills recommends that they should be regarded as a separate species, called the South Hills Crossbill. It is found in two mountain ranges of southern Idaho, South Hills and Albion Mountains. It feeds on the Lodgepole Pine cones of these mountain ranges. These are isolated areas with miles and miles of sage brush around the hilly areas. Unlike other Lodgepole Pine crossbills, the South Hill Crossbill lives in a forest in which there are no Red Squirrels. No squirrels open the pine cones and spread the seeds around. This has led to a different strategy for the local Lodgepole Pines. They form a high proportion of cones that are not opened before they are heated by a fire, a strategy called serotiny, which is favored where fires are likely to occur during the life time of a tree. The presence of squirrels selects against building a seed bank of serotinous cones since they open them.
The South Hills Crossbills have evolved an extremely thick, although medium long, bill. They can open serotinous cones that have aged and weathered for some years. The seed bank accumulates and weathers gradually, preventing the South Hill Crossbills with a more reliable food source than other crossbills. These birds are resident and do not wander and show up in other places. Other types have moved into the area from time to time and bred but they do not normally hybridize with the type 9 birds. The proposed Latin name for the South Hill Crossbill is *Loxia sinesciurus*, "sine sciurus" means without squirrel.

An excellent article about crossbill biology by Craig Benkman in Colorado Birding also has an account of the south Hills Crossbill:
http://www.uwyo.edu/benkman/PDFs%20of%20papers/Benkman_2007_Colorado_Birds.pdf

FIELD MARKS

Plump finch, big-headed.
Bill tips crossed over, which can be hard to see when the bird is high up in a conifer, the bill just looks thick and sometimes as if it has a hook at the end. The lower mandible does not necessarily protrude up above the upper mandible. The bill crosses, but does not necessarily form an x.
Adult males red, may take them a couple of years before they get all red.
Females yellowish green.
Young birds grayish, rather streaky, can be confused with Pine Siskins.
(Pine Siskin more yellow in wings and tail, longer tail, thinner straighter bill. Quite different vocalizations, Pine Siskin has a number of distinctive vocalizations including a rising buzz and also a chittering.)
Dark wings.
Very short notched tail.
In fresh plumage some can show pale fringes to the wing coverts that can form two narrow wing bars, but nothing at all like the big bold wing bars of the White-winged Crossbill.

White-winged Crossbill

OCCURRENCE
Vagrant to CA, only one record.
Range further to the north than the Red Crossbill, from Alaska all across Canada.
Eruptive species in the eastern US, one of those winter finches. Eruptions in the far west are much rarer than eruptions in the east. In the far west the White-winged Crossbill is an exceptional rarity as far south as Oregon.
Nomadic in the same way as the Red Crossbill although much more uniform, there can be years with almost no White-winged Crossbills in Canada, all bunched up in Alaska, in other years they spread out over there. Alaska seems to be the main core range.
Feed primarily on spruce which CA does not have much of.

FIELD MARKS
Slightly smaller than the Red Crossbill.
Very broad white wing bars, much bolder than the narrow wing bars some Red Crossbills can show in very fresh plumage. The front wing bar is frequently partly hidden by the scapulars. The front wing bar often looks like it runs perpendicular to the other instead of parallel, it seems to run along the wing.
The tips of the tertials are white, which is never seen on the Red Crossbill.
Female kind of grayish looking with a tinge of olive green on the head and on the back.

VOCALIZATIONS
Not like Red Crossbill at all, a chittering type of call.

Pine Grosbeak
The term grosbeak applies to any bird that has a large bill and is not a taxonomic unit.

OCCURRENCE
Found in northern forests in the entire northern hemisphere.
In America mostly a bird of Canada.
In the west the species ranges down into the Rockies.
In CA an isolated population in the Sierra Nevada, mostly at higher elevations.
Joe has had the best luck in Yosemite at a place called White Wolf on Tijoga Summit Road on the west side of the summit. Anywhere along the upper portions of the Tijoga Pass Road possibilities are pretty good. Joe has also seen them on the road that goes out to Glacier Point, Bridal Veil Campground. A lot of people see them at Yuba Pass north of Truckee.
Those birds in the Sierra Nevada do not migrate, unlike the other populations, they are non-eruptive. The other populations belong to those winter finches which occur sometimes in unusual numbers well south of their normal range. The Sierra Nevada population is a distinctive subspecies and it has never been recorded outside its range, never recorded in the lowlands. There are records in the lowlands, but the specimens that have been collected have been assigned to the race *montanus*, which is the more migratory Rocky Mountain population. There are reports from the lowlands, none ever confirmed, Joe does not believe any claims for the Bay Area, they were probably misidentified House Finches.

Feed mostly on buds and berries, not on pine cones.

FIELD MARKS

A lot like an overgrown White-winged Crossbill.
Bill shape similar (without the crossing tip) and it has white wing bars.
Adult males reddish over the head and back with various amounts of red on the underparts.
Much longer tail compared to a crossbill.
Head to body size better proportioned than in crossbills.
(Crossbills tend to have a bull-headed appearance with big heads, relatively small bodies and short tails.)
Grayer, less brown than a House Finch, lacks the streaking on the flanks, wing bars decidedly stronger.
The subspecies vary in the amount of gray they have on the underparts. The ones in the Sierra are among the more richly colored.

VOCALIZATIONS

Alarm call a very sweet melodic whistle.