Notes based on Joe Morlan's Ornithology class lecture April 2nd, 2009. Joe Morlan is not responsible for these notes, any errors or omissions in them are mine.

Clark's Grebes breed at Lake Merced and do their mating display there this time of year. Western Grebe doesn't breed here or is really scarce. Clark's Grebe also breed in some of the quarries along Alameda Creek in the East Bay. This is a relatively new range expansion.

The **Sage Grouse lek** at Crowley Lake (Mono County near the Inyo County line) used to be very well marked off of hwy 395. Just north of the lake, not far from a church, called Green Church. There used to be a couple of signs that had maps that directed you to the lek. Those signs were removed after sage grouse biologists took over the church. They now occupy the church site and discourage people from going there. The lek is somewhere in the flat grassy area by the arm of the lake that extends to the north.

The Sage Grouse that are there are genetically very distinct from any other Sage Grouse population. The difference between the Mono Lake Sage Grouse and any other Sage grouse is almost as big as the difference between the Gunnison Sage Grouse and the Greater Sage Grouse. However there does not appear to be any difference in their appearance.

The Crowley Lake lek is mostly a destination for southern CA birders. From the Bay Area getting to Crowley Lake in March and April is not that easy because most of the passes are not open yet. The Susanville lek (Schaffer Mountain, Honey Lake, Lassen County) is included in a number of books. This lek is much easier accessible from the Bay Area.

The book "Birding Northern California" by Jean Richmond from 1985 is no longer in print, it is now scanned and available online on the Mount Diablo Audubon Society web site.

A useful web tool that can be really helpful to dig up things that have disappeared off the internet is the Wayback Machine http://www.archive.org/web/web.php

A web site that does not exist any more will usually be there. The hard part is that you need to know the url.

Greater White-fronted Goose

OCCURRENCE

Breeds in the Arctic, winters in the Central Valley of CA, parts of Mexico and in the lower Mississippi Valley.

Occurs in fairly large numbers in the Central Valley in the wintertime, sometimes associating with big flocks of Snow Geese at the wildlife refuges. Also occurs in rather enormous numbers in the late fall as they are staging in the Klamath Basin, in the Tule Lake area and the Lower Klamath Wildlife Refuge.

They are more likely to reach the coast of CA than Snow Geese.

They regularly migrate through the foothills or the edges of the Central Valley, e.g. Grizzly Island. Rarely ever Snow Geese there, too close to the Bay Area.

Occasionally show up in coastal areas where they may spend the entire winter. If they become habituated with domestic ducks they may fail to migrate. This happened at Lake Merced where a

bird was around for a couple of years. Currently there is one in with the Canada Geese on the golf course at Coyote Point.

There used to be a flock of about six of them at Lake Merrit that did not migrate. But unlike the Canada Geese they never learned to stick around and breed and were unable to expand their range. Subsequently on one of the class field trips there was a Greater White-fronted Goose in with the Canada Geese there and Joe was wondering if it was a legacy of this flock of six but the naturalist said that bird appeared there about two days earlier and had not been there before, she was convinced it was a wild bird.

FIELD MARKS

Medium sized dark goose, about the size of a Snow Goose.

Adults have a white forehead (gives the species its name).

No white on the chest.

Neck pretty much solidly brown.

Some barring from pale feather fringes across the back.

Belly on adult birds with variable amounts of dark irregular blotchy bars.

"Speckled-belly" frequently used as a vernacular, by hunters also "specs".

In flight from below, belly a little paler than the rest of the body.

Bright orange legs. In flock of Canada Geese when you can't see the rest of the bird you can often pick them out by the orange legs (Canada Geese have black legs), which tend to stand out fairly prominently. Bill usually pink.

White stripe along the flank separates the barring on the back from the underparts, at least on adult birds.

Gray on the upperwing coverts.

White U-shaped band on uppertail coverts separates the dark tail.

IMMATURES

No white forehead

No dark markings on the belly

VOCALIZATIONS

Call kind of a laughing

SUBSPECIES

Three subspecies:

The most widespread in NA is the one from the Canadian tundra.

The Greenland subspecies (*flavirostris*) is of some interest on the east coast. The Greater White-fronted Goose does not regularly occur in the East. Birds that get there could be from Greenland or from the Canadian tundra. It is not necessarily an easy thing to tell them apart. Some field guides attempted to use leg color to distinguish between the two. Then it was shown that the leg color was completely unreliable.

The third subspecies (*elgasi*) is called the Taiga form by Sibley. In almost all of the literature it is called the Tule White-fronted Goose or Tule Goose. Its breeding range was only recently discovered. It is larger with a darker neck and head and less spotting on the belly. Some of them have a yellow eye ring. They winter in the Central Valley, primarily very locally around the edges of the Sacramento National Wildlife Refuge. They are occasionally seen elsewhere, but mostly in the northern part of the Central Valley.

POSSIBLE HYBRIDS WITH EMPEROR GOOSE

Sibley shows some hybrids. Not shown in any of the books is a hybrid with Emperor Goose. There is at least one record of a bird from CA that was speculated to be such a hybrid. They

apparently came about through an ill advised project to try to improve Emperor Goose numbers by putting Emperor Goose eggs into Greater White-fronted Goose nests and letting them be raised by the Greater White-fronted Geese. That apparently resulted in the birds imprinting on the Greater White-fronted Geese and then hybridizing with them. The project was abandoned quite a while ago and any possible hybrid offspring are probably all gone.

Bean Geese

Accidental in NA. Have shown up in Alaska and also in Washington State, which means they could show up in CA, especially in flocks of White-fronted Geese.

Similar to immature White-fronted Goose but have stronger barring on the back. Bill color different: black with orange band above the tip. Difference between adults and immatures less than on Greater White-fronted.

Split in 2007 by the AOU into two species:

Taiga Bean Goose

Includes the race middendorffii

Tundra Bean Goose

Includes the race *serrirostris*

Pink-footed Goose

European species, no Alaskan records.

There are east coast records, it breeds in parts of Greenland

Extraordinarily unlikely that it would ever occur as a wild bird in CA.

Extremely teeny, teeny bill. Pink legs.

TRYING TO DETERMINE NATURAL OCCURRENCE OR IN WATERFOWL

Questions about the origins of some of these waterfowl are never ending, everybody has a story and everybody has some kind of opinion as to whether or not these birds are wild. Seldom do we actually know. There is a couple of things to look for in waterfowl. Waterfowl that are raised to be released for hunting are supposed to have the rear toe removed from one foot, this is a common practice in so called private hunting clubs. They want to keep track of the differences in shot wild and released birds so they can set appropriate bag limits. Some are marked by colored bands. But just because a bird has all of its toes and seems to be in decent condition that does not necessarily mean that it's a wild bird. If the bird behaves like a wild bird that does not prove anything either. These birds will often escape and they will join flocks of wild birds and take their behavioral cues from the flock that they are associating with.

Snow Goose

OCCURRENCE

Breeds in the high arctic tundra, winters in several different discrete locations.

Two subspecies:

Greater Snow Goose which winters only in the middle Atlantic states.

Lesser Snow Goose is much more widespread. It winters in the Mississippi Valley, in parts of New Mexico and in the valleys of CA.

Quite a scarce bird in the immediate vicinity of SF Bay. The smaller Ross's Goose is more likely to be seen along the immediate coast.

Where they occur you will usually see them in rather large numbers and in densely packed flocks, that is the strategy of the Snow Goose. Every once in a while you run into a single bird, but it's much more likely you see lots of them or none at all.

Best place to see Snow Geese in CA is in the wildlife refuges during hunting season. The Imperial and Central Valleys of CA have large numbers of Snow Geese. They sometimes occur by the thousands and the tens of thousands. Places like Gray Lodge or the Sacramento Wildlife Refuge during hunting season have tour loops which are available to the general public where hunting is not allowed. The birds get pressed into the non hunting areas. There is nothing like being in a place like Gray Lodge early in the morning when out before you are tens of thousands of Snow Geese and then suddenly something disturbs them and they rise all off the water with a roar of wings. You can actually feel the wind, there is just birds as far as you can see and you get the impression of what CA probably was like when there was a lot of wetlands and a lot of birds. Bosque del Apache in New Mexico is another place that has large numbers of Snow Geese.

OVERPOPULATION CONTROVERSY

In the Midwestern populations there is some controversy in which is claimed that Snow Geese are overpopulated, that because they have adapted to agricultural fields and feed on waste grain and old rice fields in the wintertime, there are now too many and that they are damaging the fragile arctic tundra. It is claimed that we need to manage the Snow Goose populations by increasing hunting limits, they've even advocated a hunting season in the spring. Per Joe it's all bogus. It is true that they nest in dense colonies and that they pick the vegetation clean where they nest. But they do what they always have done. There are vast areas of arctic tundra that have no Snow Geese at all nesting in them. We have no clear data on what the historical numbers of Snow Geese ever were.

A friend of Joe's calls this "the final solution school of wildlife management". First you identify the problem and then you have a solution which involves shooting them or killing them in order to get rid of them.

BLUE MORPH

There used to be two species: Snow Goose and Blue Goose, easy to tell apart.

Then the genetics of the birds was studied. Even though there seems to be assortative mating between Blue and Snow, because of the genetics they concluded that the Blue Goose actually just was a color morph of the Snow Goose.

The blue morph predominates in the Mississippi Valley in the wintertime, almost all Snow Geese there are blue morph birds with a few white morph birds.

In the Greater Snow Goose, which winters in the middle Atlantic States, the blue morph is almost unknown.

Here in CA the blue morph is rare but regular in large flocks of white morph birds. They seem to be increasing a little bit.

FIELD MARKS WHITE MORPH ADULT

Medium size, about the same size as Greater White-fronted Goose.

All white with black wing tips (black primaries and some gray on the primary coverts). Pink bills and feet.

"Grin patch", a gap between the mandibles of the bill. Strange name since the bird appears to be scowling. In the gap a little bit of the black "teeth" are visible, laminations on the side of the bill which are used for pulling up grass.

The feathering at the sides of the bill tends to balloon forward like a rounded cheek.

IMMATURES

Browner heads and grayer bodies, including a portion of the back and wings.

Legs less bright, a little more purple. Also a little more purple on the bill.

FIELD MARKS BLUE MORPH ADULT

Ouite variable.

White head, slate gray colored body with some dark extending up the back and the sides of the neck, neck not all dark.

May have some white on the belly.

Wings paler than body.

IMMATURE BLUE MORPH

An all dark bird

Ross's Goose

OCCURRENCE

Breeds also in the high Arctic, a little bit south of where some of the Snow Geese do. Winters primarily in the Central Valley of CA.

The situation has changed dramatically the last few decades. Ross's Goose was considered rare and when you saw white geese you called them Snow Geese unless you were pretty darn sure that you were seeing a Ross's Goose. Over the entire last 30 years Ross's Goose numbers have climbed. Now we get big flocks of Ross's Geese. They have also expanded into the east. They occur often with Snow Geese or with other geese, with Canada Geese sometimes all the way to the east coast. They are doing very, very well. They sometimes show up by themselves, getting lost in the fog and show up a little bit out of their normal expected place. The big flocks of Ross's Geese are in the Central Valley and they often associate with Snow Geese.

When they show up along the coast outside of their normal range they habituate with puddle ducks and sometimes they become really tame.

BLUE MORPH

A relatively recent discovery, going back perhaps 20 years. The blue morph was unknown, the Ross's Goose was thought to not have a blue morph. Some small dark or blue morph Snow Geese were being seen in CA and puzzling the observers. Eventually some specimens were collected. You basically bribe hunters with other species at hunting check stations and take the rarities for further study. An article appeared in one of the journals that had photos and descriptions of birds that were identified as the blue morph of the Ross's Goose. It was thought to be an exceptional rarity, probably one in a hundred thousand. And that may still be true. The blue morph of the Ross's Goose is one of the rarest birds in NA.

How this bird came about and why it was only recently discovered to science is a little bit of a mystery. One hypothesis states that the dark morph comes from Snow Goose genes, that it crept in to the Ross's Goose population through limited hybridization.

FIELD MARKS WHITE MORPH

Can be very difficult to distinguish from Snow Goose.

Differ in size and in subtle features of the bill and the face, otherwise nearly identical.

Hardly bigger than a Mallard.

Bill much shorter than in Snow Goose.

Less of a gap between the mandibles. A little bit of a bill gap is normal for Ross's Goose. This is a fact that has come into play recently. In the east they want every field mark to be picture perfect, they want to make sure they are not dealing with hybrids. (There are hybrids between Ross's and Snow Geese, and these birds generally look intermediate.) From a distance they look like they have no gap.

Bluish gray on the base of the bill. Formed by some kind of gray warts that grow at the base of the bill. Only visible in the hand or at very close range.

The feathering at the sides of the bill tends to be relatively straight.

The neck tends to be shorter compared to the size of the bird than in Snow Goose.

The head may appear to be rounder, the forehead a little bit steeper than in Snow Goose.

IMMATURES

Plumage basically like adult but soft parts darker.

Legs grayish, sometimes with a purplish cast.

Bill also more purple, less pink.

The darkest they get is with some gray on the head and the neck but the body looks pretty much the same as an adult.

FIELD MARKS BLUE MORPH

White face

Whole neck dark

Belly quite pale

More white, less gray on the scapulars and wing coverts compared to Snow Goose

IDENTIFICATION OF WHITE GEESE IN FLIGHT

Difficult. It works out best if you have both Snow and Ross's Geese together because the Ross's Goose will look noticeably smaller. It works particularly well if they are flying in a line, so you can pick out the smaller, more compact birds with the faster wing beats and the shorter neck and stubbier bill from the bigger, slower, more lumbering Snow Geese. When they are flying at an angle bill and neck can look foreshortened and a Snow Goose can seem to be a Ross's Goose. Especially in photographs. The difference between the species is not huge, it's not easy.

AIR CENSUS METHOD OF FLOCKS ON THE GROUND

The Fish and Wildlife Service and the California Department of Fish and Game census the flocks of geese each winter to try to get a hand on whether numbers are increasing or decreasing which helps them set hunting bag limits. They use a trick to distinguish the species from the air. In Snow Goose the immatures are darker, they have a considerable amount of gray on the wings and some dark on the head also. The immatures of the Ross's Goose from a distance appear to be all white, they have none of this darkness on the body. They have a little dark stripe down the back of the neck but otherwise they are similar to the adults. So when you have a pure flock of Snow Geese you will see a mixture of white birds and gray birds, if you have a pure flock of Ross's Geese they will all appear to be white. This gives you a general idea. Unfortunately a lot of the flocks are mixed, so it's not a simple matter to separate out the numbers of Snow and Ross's Geese.