

Notes based on Joe Morlan's Ornithology class lecture May 13<sup>th</sup>, 2010.

Joe Morlan is not responsible for these notes, any errors or omissions in them are mine.

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**Churchill, Manitoba** is along the southwest shore of Hudson Bay. It is one of the more accessible areas for arctic birds in NA. You can fly there or go by train from Winnipeg. Churchill is particularly famous for ecotourism in the fall when Polar Bears come into the town. In May and June a lot of birdwatchers go there. They look for birds like Smith's Longspur singing on territory. A lot of the arctic species that normally require much more travel are reasonably accessible at Churchill. Ross's Gulls used to nest there, it is unclear whether they still do, they have been there in really small numbers for quite a few years.

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## Grebes

Grebes are diving birds with their feet far at the rear. They do not have webbing between their toes. Instead each toe has a lobe of skin. This allows water to pass between the toes on the forward stroke of the foot as the lobes rotate backwards. At the backward stroke, the power stroke, the lobes rotate forward creating a temporary web. Coots and phalaropes also have lobes on their toes. Phalaropes are better swimmers than other shorebirds. Grebes have their legs compressed laterally like loons.

Grebes are famous for having the ability to submarine. They sink into the water by letting the air out of air sacs under the skin and by compressing their body feathers. Grebes have very fluffy body feathers, a great deal of air is trapped in them. In order to sink the birds will press their body feathers against their body expelling the trapped air in addition to letting the air out of the air sacs. Pied-billed Grebes do that a lot and Joe has seen Least Grebe doing it. Horned and Eared Grebes usually jump-dive forward. Pied-billed Grebes can swim with just the head and neck sticking out of the water like a periscope, moving around like a submarine. They can fine tune their buoyancy.

Grebes don't have a tail. In birds the tail is composed of stiff feathers which are anchored into the tail bone. The tail bone in birds is a series of cordal vertebrae that are fused into a single bone called the pygostyle. Grebes have fluff at the rear end but they do not have true tail feathers.

Tail feathers are important for diving ducks. They use them to press against the surface tension of the water and get under the water, grebes do it in a rather different way. Tails are also important for flying. Grebes hardly ever fly, at least not during the daytime. Some grebes are quite migratory but the migration appears to be largely at night.

Most grebes have floating nests. They are not really able to walk around on the ground because their feet are so far back, so their nests are located in the water. Sometimes just a pile of plant material, sometimes attached to emergent marsh vegetation.

The chicks are precocial in all grebes. All but Western and Clark's grebe chicks have black and white stripes on the head, some species also patches of bare skin that can look yellow, or red when the bird is agitated. The large juveniles retain traces of streaking for quite some time. The chicks ride the backs of their mother. When the mother dives they hang on, as in loons.

When grebes sleep they do not stick their bill in their back feathers the way most birds do. Instead they roll their necks back and roll their bills forward, sometimes sticking the bill into the front of the neck. They can conceal a good portion of their face like that.

Grebes molt all of their flight feathers simultaneously.

Grebes tend to have a rather thin neck compared to loons.  
They typically have dark backs and brownish, gray or whitish sides and flanks.

## **Least Grebe**

An Old World species in its genus and another small Australian grebe are sometimes referred to as **dabchicks**.

### **OCCURRENCE**

A tropical species ranging from Texas down into South America.

Not really common in Texas, far outnumbered by other species of grebes.

Have increased a bit in the last 20 years or so.

Likes shallow ponds, sewer ponds.

Non-migratory, seldom show up outside of their normal range.

There are records in southeastern CA. The first record was at West Pond along the Colorado River, five adults and four downy young in October 1946. One adult male and one chick were collected.

### **FIELD MARKS**

Smallest NA grebe.

Eye yellow.

All gray head and neck, dark cap.

Black throat in breeding plumage.

In flight shows a fairly extensive white patch on the trailing edge of the wing.

Joe photographed a bird in Texas that was much browner than the field guides show.

## **Pied-billed Grebe**

### **OCCURRENCE**

Breeding range over most of NA, avoids the high arctic.

Found throughout the year over much of the US.

During the breeding season fairly common in any kind of marsh land.

Frequently heard.

In the Bay Area they are probably more common in the winter than in the summer.

Mostly in fresh water habitats, also on brackish water in estuaries, bays. Don't tend to be on the ocean.

In CA multi-brooded (more than one brood each nesting season). Nests from late February and as late as November.

Pretty common breeder, found even on golf course ponds. Have been nesting in recent years in GG Park, Stow Lake

**FIELD MARKS**

Quite a bit smaller than a coot.

Head very rounded and rather large compared to the tiny head of the Least Grebe.

Generally browner in overall coloration than the other species, especially in the winter.

In the winter the whole bird becomes quite brown and the front of the neck becomes orangey or reddish. Throat and chin pale.

In the height of the breeding season the side of the face and the foreneck turn gray and the chin and throat black. Colder colors than in the winter.

Bill short and thick.

Black band or ring around the bill most evident in the breeding season. In the winter it can be faint or absent.

Eye brown, whitish eye ring.

All of the other grebes have white on the flight feathers, visible on the upper side of the spread wing, in Pied-billed just a narrow edge along the tips of the secondaries.

**Juvenal**

Remnants of a stripy head. Reddish brown coloration on the foreneck like winter adult.

**Immature**

Smaller bill, browner color overall. Pale throat, no gray.

**VOCALIZATIONS**

Song very surprising, a loud cowp, cowp, cowp, cowp, cacacacac. Almost sounds like a sound track for Tarzan or The Jungle.

Chicks frequently give a high-pitched pipipipipip.

**Horned Grebe**

British name Slavonian Grebe.

**OCCURRENCE**

Also found in Eurasia.

Breeds well up into Alaska and in much of Canada.

Common in the Bay Area in the winter, as is Eared Grebe. Horned much more of a coastal bird, occurs in the bay and along the coast. Rare to uncommon on inland lakes. When it does occur on inland lakes it occurs usually in small numbers and only on deep lakes. Horned likes deep water, Eared is more a bird of shallows. Horned are probably becoming a little more common inland than they used to be. For example at Lake Hennessey in Napa County small numbers are reported and some of the other reservoirs are getting them also. The area around the dam is usually the deepest part of reservoirs, look for them there. It is certainly possible, but they are noteworthy. If you see Horned Grebes at these inland reservoirs, look at them carefully, don't just assume it is a Horned.

These birds can be migrating for quite some time, Joe has seen them as late as June at the Pt Reyes Fish Docks. Their migration is rather protracted, partly because they reach well up into the high arctic, some of them may straggle because the tundra isn't opened up yet.

They arrive here in the fall.

We do get both Horned and Eared summering in the Bay Area. Like loons, if they summer here they usually do it in winter plumage.

**FIELD MARKS**

Has a lot in common in all plumages with the slightly smaller Eared Grebe.

Both pretty small, about the same size as Pied-billed Grebe.

Both have red colored eyes.

Head relatively flat, longer and flatter than Eared.

Peak of the crown at the rear of the head well behind the eye. (Above the eye on Eared.)

Bill thicker and blunter than Eared with a pale spot at the tip that is missing in Eared.

The neck is decidedly thicker than that of the more delicately looking Eared.

Rounded back, highest in the middle and evenly sloping down both in front and behind.

**Summer**

Black head with golden "horns" extending straight backwards behind and above the eye. These plumes can be raised so they extend upwards above the crown, but they never extend down on the cheek.

Front and sides of the neck reddish brown. (Whole neck black on Eared.)

Chestnut brown sides, dark back (both species).

**Winter**

Gray back, crown and hindneck. Whitish sides and flanks, foreneck and face (both species).

Entire cheek pristine white, flat dark cap crisply demarcated from it, quite different from the face pattern of Eared.

There is a little bit of a white projection extending up at the back of the head in both species.

Often a pale spot in front of the eye. Some Eared may show this as well! Also, it can be faint on darker Horned. This is too variable to be a useful field mark.

The old Peterson field guide showed a white foreneck on Horned and a gray or dirty foreneck on Eared. Foreneck color does not work to distinguish these birds! Horned Grebes can have a dirty neck. Worn Eared Grebes can show quite a white foreneck.

**Eared Grebe**

British name Black-necked Grebe.

**OCCURRENCE**

Also occur in Eurasia.

Breed in the western part of NA, more southerly than Horned with some overlap.

Common in the Bay Area in the winter. On inland lakes, sewer ponds, saline lakes such as Mono Lake, Salton Sea. Also frequently on SF Bay and even on the open ocean.

Mono Lake is a major staging area where huge numbers stay in the fall and go through their prebasic molt before they continue their migration.

Have nested in the SF Bay Area on rare occasions. One year there was a lot of successful breeding in the marshes around the Palo Alto Baylands and Alviso. Most years they do not breed in the SF Bay region. They breed in freshwater marshes elsewhere in northern CA.

**FIELD MARKS**

A more delicate bird with a smaller head and thinner neck than Horned.

Head peaked with the highest point above or just slightly behind the eye. Forehead much steeper than Horned.

More delicate looking bill that can look slightly upturned. Thinner and sharper at the tip. No pale spot on the tip.

The rear end of the bird is often fluffed up and the highest point of the body but not always. The rear end collapses for example when they press the air out from between their feathers to dive.

**Summer**

The golden plumes on the sides of the head start behind the eye and are fanned out both above the eye and below the eye down onto the cheek. They are not as solid as on Horned, instead more wispy with individual feathers separated instead of a solid clump of gold or yellow-gold colored feathers.

The dark peak of the crown always sticks up between the two plumes.

Whole neck black unlike Horned.

Chestnut brown sides, dark back (both species).

**Winter**

The dark from the crown normally extends down onto the cheek, shading with gray and blending. Some birds they may be fairly well defined in terms of dark versus white but never the whole cheek gleaming white like Horned.

The white on the face loops down and then comes back up. On Horned it cuts back straight behind the eye not coming down onto the cheek and then up at the end of the crown. The face pattern is the most reliable field mark, partly because it is least likely to be misinterpreted.

Usually but not always a grayish foreneck.