Notes based on Joe Morlan's Ornithology class lecture October 28th, 2010.
Joe Morlan is not responsible for these notes, any errors or omissions in them are mine.

Today Hugh Cotter found what looks to be a **Great-crested Flycatcher** at the **SF Zoo** when looking for a reported **Scarlet Tanager**.
It is a *Myiarchus* flycatcher, similar to the Ash-throated that we get here. It was perched high in the Eucalyptus, Ash-throated usually perch fairly low.
There are some slight differences in the tail pattern that Joe thinks he can see in the photos.
The underparts are very dark gray across the chest, Ash-throated is a very pale-chested bird.
There is no other *Myiarchus* that is that mouse gray on the breast. It is pretty contrasting and a little greenish on the sides where the gray meets the yellow. The yellow on the underparts is pretty bright, too. The most compelling part are the white fringes on the tertials. The innermost tertial has a big slash of white on it, you don't get that on other *Myiarchus* flycatchers.

Dichotomous keys for bird identification: a couple of different ones have been published. The most significant one is Ridgway's Manual of North American Birds. Another one is Coues's Key to North American Birds. Both attempted to do the same thing. Written in the late 19th or early 20th century.

Wedge-tailed Shearwater

OCCURRENCE
A tropical bird which is fairly common as a breeder on the Hawaiian Islands.
It also occurs throughout the southern oceans, mostly in warm water.
First NA record in Monterey Bay on 31 August 1986. It was a light morph bird. Most of the other records are of dark morph birds.
Six CA records, one of them inland at the Salton Sea.

FIELD MARKS
Very long, wedge-shaped tail (the central tail feathers are the longest).
In the field you essentially see a long, pointed tail. You only see the wedge when the tail is spread.
Dark bill, quite thin, held straight rather than down.
The wings are generally angled a bit and the birds are graceful flyers.
Light morph:
White underneath,
dark head,
underside of the tail dark.

The Pink-footed Shearwater (which is closer to us and more expected) is larger, with a pink bill and a shorter, stubbier tail.

Joe talked to Australian seabird biologists who were convinced the birds breeding off Australia were different from the ones in Hawaii, but they were not more specific. No subspecies are currently recognized.

Flesh-footed Shearwater

Old NA name **Pale-footed Shearwater**

OCCURRENCE

Breeds off Australia where it is very common.
If you take pelagics off CA you will eventually see it.
On most of the trips Joe does not see it, but he has seen as many as five on some of the winter trips.

FIELD MARKS

All dark, fairly large.
About the size and shape of a Pink-footed Shearwater which is very common off CA, it breeds on islands off South America. Some authorities argue they are the same species, just with different subspecies or perhaps different color morphs.
Best identified by the pale bill.
You almost never see the feet.

Bulwer's Petrel

OCCURRENCE

A super-rarity anywhere in NA
Just one accepted record from CA, in Monterey.
Photographed off North Carolina.
A warmwater bird.

FIELD MARKS

Intermediate between a storm-petrel and a shearwater.
Somewhat *Pterodroma*-like with a short, stubby bill held down at an angle.
Flight somewhat more storm-petrel-like.
Very long wings, bowed in flight.
Also a very long tail, looks in some ways like a miniature Wedge-tailed Shearwater, but with a much shorter bill.
Essentially all dark, some pale on the upper surface of the wing.

Short-tailed and Sooty shearwaters

A species pair which poses almost insurmountable identification issues.
Both breed in the southern hemisphere.
They look almost identical, they are variable and the differences between them are subtle.
The way to tell them apart is by overall size, and we all know how easy it is to judge size when we are on a rocky boat over the open ocean and have waves to compare the birds to.

Short-tailed Shearwater was one of the reasons Joe stopped leading boat trips. The desire to see one was palpable. Joe could never identify them at a distance, he had to wait for them to get close. By that time, when he yelled it out, it would be too late for anybody to see the bird.

The main thing people look for are the underwings where there are average differences. With the shallow wing beats the pattern on the underwing can be difficult to assess.
Joe looks at the lightest part of the underwing and then looks if it is substantially whiter than the belly. If they are the same, Joe goes with Short-tailed. If the underwing patch is whiter and particularly if it is confined to the outer wing mostly, he goes with Sooty. If he can't tell, he goes with Sooty, because it's a million to one.

Joe has seen a Short-tailed and a Sooty flying together, banking, and showing what was a uniform brown underwing on the Short-tailed, a big white flash in the underwing of the Sooty, and the smaller size quite evident as these two birds were in direct comparison with each other.

Short-tailed Shearwater

Old name **Slender-billed Shearwater**

OCCURRENCE

Breeds abundantly off Australia. On some of the nesting islands they are called **Mutton Birds** because the Natives harvest them out of their burrows and eat them. They have a high fat content and are quite nutritious.
The birds go up into the Bering Sea during their winter. There are millions of them in the Bering Sea in our summer, it is the most common shearwater there.
This species tends to show up in the late fall and winter in CA. What seems to happen is that the entire population ends up in the Bering Sea and then crisscrosses back across the middle of the ocean to Australia. Only a few stragglers come down the west coast.
In mid-winter we have much better luck finding Short-tailed Shearwaters than we do in any other season. One of the reasons is probably that there are fewer Sooty Shearwaters to look through. They probably occur just as commonly in the early fall but are swamped out by the enormous numbers of Sooty Shearwaters.
Historically their status was hypocryphal in CA. Rollo Beck had collected some in the 1920s in Monterey Bay and a few specimens had been washed up as tideline corpses. But birdwatchers were unable to find these birds. Victor Morejohn started to take his boat out of the Moss Landing Marine Laboratories and shoot shearwaters to see whether or not they were vectors for Asian flu. He collected them more or less at random. Some of them keyed out to be Short-tailed Shearwaters (using a dichotomous key). He also collected quite a few Sooty Shearwaters and he collected some birds that appeared to be intermediate in their measurements. Laurie Binford looked at the specimens and found that all of the intermediate birds were in fact Sooty Shearwaters. They had shorter bills because they were probably younger birds where the bill hadn't grown completely yet.

We now know that they are regular in late fall and winter along our coast. Be cautious though, they are very hard to tell from Sooty and it is all too easy to try to force a Sooty into being a Short-tailed.
Unknown in the Atlantic.

FIELD MARKS
Very hard to tell from the almost identical Sooty Shearwater.
On the underwing, instead of a brilliant white flash, there is a uniform smoky gray brown color that is similar to the color of the underparts, the bird looks quite uniform from the belly to the underwings.
Sooty Shearwaters tend to have dark bellies and big white flashes in the underwings.
Some Short-tailed Shearwaters will show more white in the underwing and those are almost unidentifiable. The ones that have pale underwings tend to also have pale bellies. That's why we call them light morph.
They molt in the Bering Sea. When they are molting their underwing coverts, the white bases to the primaries and secondaries show up, which gives you the effect of a white flash in the underwing. In Alaska the birds are much harder to tell apart. The ones that are finished molting tend to migrate down to CA.
Joe believes Short-tailed is more likely to have a slightly bent wing when soaring.
Some show a pale throat and a dark cap, but not all of them. A pattern like that is rarely seen on a Sooty Shearwater.
The tail is a little bit shorter but that is not a useful way to distinguish them.
The feet do project beyond the tail when they are out, which they do not on Sooty.
Much smaller, more rounded head and a steeper forehead, this is more sloping on Sooty.
Bill all dark and shorter than on Sooty. They seem to pose with their bill at an angle when they sit on the water. The Sooty Shearwaters seem to hold the bill out straight. Joe does not know if that is reliable, it is never mentioned in any books. Just occurred to him now.
There is a theory that Short-tailed Shearwaters are more likely to follow boats. Sooty Shearwaters tend to ignore boats, but there are enough of them to quite often get a lot of them in the wakes.

Sooty Shearwater

OCCURRENCE

Breeds on islands in the southern hemisphere and migrates into the northern hemisphere.
Both oceans (Pacific and Atlantic). Common at both Pacific coasts, off Japan as well as off CA.
The most abundant tube nosed bird off CA. A good portion of the world's population probably occurs here. Way more common in CA than at the east coast. We get enormous numbers in the summer and fall, we also get them in the spring and very small numbers in mid-winter.
Occurs by the millions off CA in the summer and fall. Sometimes in enormous flocks close to shore. Sometimes they come in during the evening and will roost under the Golden Gate Bridge or even inside SF Bay. The most common shearwater seen from shore in the summer from July through August. If there are schools of bait fish near shore you may be able to see thousands and thousands of these dark birds flying back and forth over the ocean with narrow wings and stiff wing beats, foraging for fish which are near the surface in relatively shallow water. One of the best places to see this phenomenon is off Santa Cruz or Aptos, at New Brighton State Beach. Almost every fall hundreds of thousands can be seen easily with binoculars or even with your bare eyes as they move up and down the shoreline to find the schooling fish.

FIELD MARKS

Paleness underneath varies.
Occurs in light and dark morphs. The light morph is still all dark, it's just lighter.
There is considerable individual variation. You get this variation on both species.
Bill longer than on Short-tailed Shearwater.
Forehead more sloping than on Short-tailed.
Contrasting white stripe on the underwing coverts down the middle, with the tip and the edges of the wing mostly dark. Show up as white flashes as the birds bank this way and that. They invariably have the white in a patch in the middle of the wing, with the outer edges dark.
Sooty Shearwaters are frequently in heavy molt in the fall and winter, while most of the Short-tailed Shearwaters are immaculate and not molting. A bird in heavy molt in that season is probably a Sooty.
Rather narrow bodied, extremely narrow long pointed wings. Very stiff wing beats.
If the name shearwater is evocative in any sense, the Sooty Shearwater is certainly one of them. The Sooty Shearwater is frequently flying with the tips of the wings just touching or shearing the water as the bird flies low over the water.