

Notes based on Joe Morlan's Ornithology class lecture September 16th, 2010.
Joe Morlan is not responsible for these notes, any errors or omissions in them are mine.

The **Island Scrub-Jay** is very much like the Western Scrub-Jay but a little bigger, with a bigger bill, and richer blue, undertail coverts always blue. **Endemic** to Santa Cruz Island. The other CA endemic is the Yellow-billed Magpie.

The San Clemente Island Loggerhead Shrike is a subspecies, not a species. Additionally, the shrikes on San Clemente Island do not look like the type specimen for that subspecies, so it is unclear what it is they are preserving.

Machias Seal Island in the Gulf of Maine (ownership claimed by both Canada and the US) has blinds where you can sit for about an hour and observe nesting Atlantic Puffins, Razorbills, Arctic Terns.

Joe went to **Cape Cod** this summer and took a pelagic **whale watching trip out of Provincetown**. Nice huge boats with an upper deck and benches. Not intended for bird watching, but you see Wilson's Storm-Petrels and Great Shearwaters (a name change this July, it used to be the Greater Shearwater). Lots of Minke Whales which were really close (usually they are shy) and Humpbacks.

Last Sunday Hugh Cotter had organized a **pelagic trip out of Half Moon Bay**, announced on the SFBirds mailing list. Spent a lot of time in deep water off the shelf, in both SF and San Mateo counties. A pretty successful trip. It had been cancelled once, they only go if the conditions are favorable. Really nice close views of Laysan Albatrosses, lots of Black-footed Albatrosses, Wilson's Storm-Petrel close to the boat, lots of Black and Ashy Storm-Petrels, some people saw Fork-tailed Storm-Petrels. Not too many alcids, but Rhinoceros Auklets and two Tufted Puffins in winter plumage.

We are in the middle of **migration** and **vagrant season** is upon us. Some of the eastern warblers are moving through. Blackburnian and Blackpoll warblers have been seen in the city and Chestnut-sided and Magnolia at Pt Reyes. There was a lot of fog lately which can be good or also can be bad depending on the situation. Shorebird migration is in full swing also. The mouth of Pilarcitos Creek in Half Moon Bay has been very productive, the rarest birds being Semipalmated Sandpipers and a Baird's Sandpiper. Joe has photographed shorebirds there recently and posted some of those photos in the Birds and Wildlife photo gallery on his website:
<http://fog.ccsf.cc.ca.us/~jmorlan/newgallery.htm>

There are a lot of **Heermann's Gulls** right along the immediate coast now. They breed mostly in Mexico and they tend to associate with Brown Pelicans which they steal fish from. Many of the Brown Pelicans will be leaving later on in the fall. They breed mostly in the winter. By January or so they tend to disappear and then they arrive back in the summer again. Scarce in the spring, build up big numbers in the summer time, then they start to decline through the fall and winter, by midwinter they can be hard to find. The last time Joe did the Half Moon Bay Christmas Bird Count they had one Heermann's Gull on that CBC.

Rhinoceros Auklets are nesting now on Ano Nuevo island. Artificial burrows are set up to encourage them. They have been expanding their range.

In July the 51st supplement of the AOU checklist was published:

http://www.aou.org/checklist/suppl/AOU_checklist_suppl_51.pdf

This happens annually, with changes in names and classification. Changes this year to English names that effect our field guide:

- p. 88: **Great Shearwater** now instead of Greater Shearwater
- p. 268: The Whip-poor-will has been split into two species:

Eastern Whip-poor-will *Caprimulgus vociferus*

Mexican Whip-poor-will *Caprimulgus arizonae*

arizonae was formerly a subspecies which now has been elevated into a full species based on differences in vocalizations and some publications on genetics.

No overlap in the ranges of these birds. The Eastern one is found in the east, the western here in the southwestern US and down into Mexico. The isolated red patches in southern CA are Mexican Whip-poor-wills. The species breeds in extremely tiny numbers in the San Bernardino Mountains. On the top of Clark Mountain there is an isolated grove of Rocky Mountain type fir and whip-poor-wills are apparently present during the summer months. Possibly also elsewhere in southern CA.

Recorded in northern CA as a rare vagrant. As yet no accepted records of Eastern Whip-poor-will in CA. However, a bird trapped in a mist net in San Diego in November 1970 was measured and photographed in color and compared directly with specimens and was thought to be an eastern (<http://elibrary.unm.edu/sora/wb/v02n01/p0037-p0040.pdf>). In a subsequent paper on birds of Sonora (Hubbard, J.P. and R. S. Crossin. 1974. Notes on northern Mexican birds. *Nemouria* 14:1-41) the authors disagreed with the identification of the San Diego bird. One reason for that was that the article that was published on the San Diego bird suggested that there was a difference in the color of the rictal bristles between the two forms. The curator of birds at the San Diego Museum of Natural History, Joseph Jehl, Jr., found that the Eastern Whip-poor-will had all black bristles while the Mexican birds had brown bases to those feathers. Hubbard and Crossin found a specimen of a bird from Mexico that had all black bristles. Another reason were the measurements. The San Diego bird was very small and measured outside the range of Mexican and well within the published range of Eastern, but looking at specimens from the Smithsonian, Hubbard and Crossin found a number of Mexican that were considerably smaller and approached the size of the San Diego bird. They did not list those specimens though and they did not provide any measurements.

The record has been prepared and is circulating but it has been poisoned by the publication of the doubts. Joe does not see a reason why it should not be an Eastern.

A photo of the bird is on the CBRC Rare Bird Photos page

<http://www.californiabirds.org/photos/index.html>

There is a difference in plumage, the Eastern Whip-poor-will is gray on the top of the head and on the back. The Mexican Whip-poor-will is much browner, more tawny in coloration. Also some differences in the width of the streaks on the back.

- p.342: Two North American species have been split off from the former circumpolar Winter Wren *Troglodytes troglodytes*:

Winter Wren *Troglodytes hiemalis*

Pacific Wren *Troglodytes pacificus*

The birds found in the far west from CA to Alaska are now called the Pacific Wren. It includes the Aleutian subspecies group (each island has its own).

The eastern more migratory species, which ranges almost into the Yukon and then all the way east to the east coast and the Appalachians and winters in the southeast, retains the name Winter Wren.

David Sibley has an essay on his website that has brand new range maps and he recommends that people use the modifier (Eastern) when they talk about Winter Wren, just for clarity.

In their infinite wisdom the AOU kept the name Winter Wren for the eastern population. The consequences of this were probably not thoroughly thought out. What they did violates their own published policy on English names which says that when there is a split they need two unique names. Having the same phrase being used to describe two different things invites confusion. It is tragic to keep the name Winter Wren for just a part of what used to be the Winter Wren. Most people using standard field guides will continue to report Winter Wren in CA, when in fact Winter Wren is now one of the rarest birds that ever occurred in CA.

There have already been post-split reports of Winter Wren in CA by competent birders who did mean the old Winter Wren, what they now should be calling the Pacific Wren.

There are claims of the new Winter Wren, the eastern bird, for CA. The best of those is a bird which was photographed and voice recorded in Santa Barbara last winter, it is very likely to be accepted. A photo of the bird is on the CBRC Rare Bird Photos page

<http://www.californiabirds.org/photos/index.html>

The call notes are different, that is the easiest way to tell them apart. A suspected Winter Wren should be voice recorded. They are also paler, not as tawny and richly colored as the Pacific Wrens are. Pacific are very tawny, particularly in the throat (the Aleutian populations are paler).

The scientific name of the old Winter Wren was *Troglodytes troglodytes*. That name is now reserved for the bird that is found in Eurasia. Since it is found in Eurasia and there are no records in NA the AOU did not have an opinion on what its English name should be. In international lists it is called the Winter Wren. One more source of confusion!

- There are also numerous changes in scientific names, mostly genera, in the updated checklist. The warbler genus *Vermivora* for example is now restricted to very few species
- Also some changes in list sequence. For example, the longspurs and Snow Bunting are lifted out of the finches and sparrows and put in front of the warblers.

The California Bird Records Committee maintains an **official CA check list** which Joe updated in July, all of the names are now compliant. Now there is only the Pacific Wren on the checklist, but Winter Wren will be on the checklist once the Santa Barbara bird gets accepted.

http://www.californiabirds.org/ca_list.asp

The **AOU Checklist Committee's own rules on English names** say that when there is a split they need two unique names. There are some exceptions. They cited an interesting exception when they split off the Cuban Blackbird from the Red-winged Blackbird and retained the name Red-winged Blackbird for the NA one. They gave as the reason that the Cuban Blackbird had such a reduced range that the issue was not worth it to change a well established name.

Procellariiformes

Also known as **tube nosed birds**. They have forward-facing tubes on either side of the bill.

In albatrosses those tubes are separated from each other as opposed to shearwaters and some petrels in which the tubes are touching each other on the top of the bill.

The function of these tubes is disputed. It has been suggested that they contain valve-like pockets which allow the birds to exploit winds of varying speeds during dynamic gliding, but evidence for this hypothesis is lacking. A supersaturated saline solution excreted by salt-glands behind the forehead passes out through these tubes. This mechanism may allow seabirds to drink sea-water.

However, other species of birds also have salt glands yet do not have tubular nostrils.

We know from experiments with different tube nosed birds that they have an extraordinary homing capability. Manx Shearwaters have been taken from nesting burrows in the British Isles and transported totally out of range to Boston and released. The birds returned immediately, within ten days, to their nesting burrows.

Laysan Albatrosses which breed on the Hawaiian islands have been removed to the southern hemisphere and those birds have all returned to their nesting grounds within a relatively short period of time.

Albatrosses

There are only three species of albatrosses that breed in the northern hemisphere, Short-tailed, Laysan and Black-footed. All three of them breed in the northern Pacific Ocean.

They breed at the same time as southern hemisphere albatrosses, during our winter when there is summer in the southern hemisphere.

Two species of albatrosses are regularly seen off our coast, Laysan and Black-footed.

There are numerous other species of albatrosses that occur in the southern hemisphere, breeding on islands in the south Atlantic, south Pacific and Indian oceans. Many of these species also breed on some of the sub-Antarctic islands. There is much more ocean in the southern hemisphere than there is in the northern hemisphere, there are many more species of seabirds that are found in the southern hemisphere. These are ocean wanderers. Many of these birds travel many thousands of miles, some of them migrate thousands of miles annually between feeding grounds in one hemisphere and breeding grounds in the other hemisphere. Most of the albatrosses however keep to their own hemisphere. Around the equator there is a section of windless ocean called the doldrums which tends to prevent some species of seabirds from traversing into the other hemisphere since they have difficulties to fly in calm conditions because of their long wings.

Albatrosses feed primarily on squid which they capture with their bills at the surface or by shallow diving. A lot of times the squid is at the surface of the water at night. A lot of these seabirds that are found on the open ocean are largely nocturnal, which makes them rather difficult to study. However, human beings have been throwing edible trash out the back of boats for a long, long time and most species of albatrosses have learned that. It is not too surprising when you go out on a pelagic trip that seabirds such as albatrosses frequently show interest in the boat. You can really get albatrosses to the boat by chumming. Chumming is throwing edible stuff like squid pieces or fish heads or even popcorn out the back of the boat. These seabirds are known to have a keen sense of smell, which is unusual for birds. Smelly fish oil is often used to attract seabirds. There are a variety of different chumming methods and materials that are being used. The popcorn is to keep the gulls interested so other seabirds will see from a long distance that there is a flock of birds following the boat.

These birds breed on oceanic islands and spend the rest of their lives at sea. In almost all cases albatrosses show no fear of humans. They have had no reason in their evolutionary history to be afraid of human beings. This kind of tameness is frequently seen in birds from remote oceanic islands that do not or did not until recently have permanent human settlement.

The wing is very long, it has two external joints, the wrist and the elbow. In most birds the elbow is internal to the body cavity, here it is external to the body cavity. The feathers attached onto the humerus (the upper arm), which is external on the albatrosses, are called the humerals.

These birds don't flap a lot. They glide a lot, they are really built for gliding. They use wind currents and differential wind speeds for dynamic gliding.

They need to get a running start when taking off from the water because their feet are located fairly far back and because their wings are so narrow. They take off into the wind flapping a lot. There is a hump on the back of albatrosses sitting on the water because the wings fold in three sections on the upper side of the body instead of just two.

The largest albatrosses are the Royal and Wandering albatrosses, also called the great albatrosses. The wing span reaches over 11 feet on those birds.

The body feathers come out of the same follicles as the down feathers and the down feathers are stuck to the tips

They lay a single egg, many nest only every other year. The chicks like all of these tube nosed birds are overfed so that they become approximately 150% the weight of an adult. They are then abandoned by the adults and lose a lot of weight. They have to fly and leave the island on their own and they return to the island years later on their own. Everything is innate, being able to find squid and find the currents and everything that they do. None of it is learned behavior.

Short-tailed Albatross

OCCURRENCE

A very rare species which breeds on islands off Japan. It was formerly uncommon but was driven to the verge of extinction by feather hunters and by European profiteers who went to these islands and killed all of the albatrosses in order to make pet food out of them. These birds are now considered a national treasure and are protected by the Japanese government but they have had a number of problems. One of the volcanic islands they are nesting on erupted while they were nesting and that killed a whole bunch of them also.

They range regularly into the Aleutian ocean and were regularly seen close to shore off CA before the 20th century.

The population is now improving. They are transporting them and moving them to different islands and trying to do everything they can to improve the population. From time to time these birds are seen from boat trips off CA waters.

FIELD MARKS

They take many years to become fully adult.

Become quite white as adults, but most or all of the CA records are of young birds.

Those young birds are dark with a bright pink bill that shows up even at a considerable distance.

Key field mark in all plumages is a bill the color of pink bubble-gum with a tip which is pale ivory or bluish ivory in color, not dark. No other albatross in the north Pacific has a bright pink bill like this.

They have about an eight foot wing span, are obviously larger when seen together with a Laysan or a Black-footed Albatross.

Laysan Albatross

OCCURRENCE

Breeds on the Hawaiian islands, it is the most common albatross there.

Used to be very rare off CA's coast and used to be reviewed by the California Bird Records Committee. They still occur in small numbers but have become regular enough that we no longer consider them to be that rare. Nevertheless, on pelagic trips they are still the least common of the ones seen regularly.

The Laysan Albatrosses that we are seeing are thought to possibly come from nesting colonies off Mexico rather than from those off Hawaii. That is a new colonization.

Occasionally Laysan Albatrosses show up in the East Bay, sometimes appearing kind of stunned, standing in the middle of some road, may have come on a container ship and gotten thrown off when they wanted to unload the ship. More rarely the birds are seen inland, like flying over Walnut Creek and there is also a record of one flying over the desert in southern CA. These birds range into the Sea of Cortez and may fly overland trying to reach the ocean. We do not get these inland and coastal records with any other albatross.

There is a Laysan Albatross that has spent the winter at Point Arena Cove in Mendocino County for around seventeen years now. It usually arrives some time in November and leaves in March. Joe think it probably is prospecting to breed there. It is very tame, known by everybody there by the name Al, the albatross. If you want to make a trip to Point Arena Lighthouse you can call the harbor master if the albatross is still there, he'll know. Sometimes it is not there in the daytime and comes in the evening.

FIELD MARKS

The immatures look pretty much the same as the adults, unlike most albatrosses that continue to change their plumage for several years before they get their fully adult aspect. (Hence the scientific name *immutabilis*, which means unchangeable.)

Overall aspect slightly gull-like with a white body and a black back.

White head, dark around the eye and variable amounts of gray on the face.

Bill pink, but the tip is dark, and the pink is not nearly as bright as in Short-tailed.

The bases of the primary shafts are white on the upper side.

The underwing pattern is rather irregular and blotchy. White with a dark outline and dark wedges and dark primaries.

A dark tip to the tail.

Black-footed Albatross

OCCURRENCE

The albatross that you are most likely to see if you go on a pelagic trip that goes offshore, which essentially means beyond the continental shelf. It is fairly easy to leave the continental shelf out of Half Moon Bay. If you go on pelagic trips to the Farallon Islands you go 30 miles and you are still on the shelf. You are not likely to see albatrosses unless you go about another five miles beyond the Farallones where you get into the deeper water where the albatrosses are. Not all boat trips decide to go beyond the Farallon Islands. If you decide to go on an Oceanic Society Cruise to the Farallon islands leaving from SF, be aware that they do not chum for birds, so they are less likely to see birds like albatrosses that are attracted by chum than an organized birdwatching boat is. It also depends on the weather. Weather off the Golden Gate is very iffy, there is some treacherous water that you have to pass over.

It nests on the same islands that the Laysan Albatross nests on and it is declining. It is the most common albatross off CA with the highest numbers in the summer and in the spring, lowest numbers in the fall and medium numbers in the winter. If you go out in June you can see hundreds of them. The reasons for their decline are not entirely clear. It may be competition with Laysan Albatrosses which are increasing. Spends most of its non-nesting life east of the Hawaiian islands, in the eastern Pacific, along the California Current up into British Columbia. We are in the main non-breeding area of the Black-footed Albatross.

FIELD MARKS

Bill usually dark

A rather long-necked albatross with a relatively small head.

The amount of white around the face, on the rump and on the undertail coverts varies, as the birds get progressively older some of them get whiter. A few of them get white enough so that they can be confused with other species such as the Short-tailed Albatross.

VARIATION AND HYBRIDIZATION

Laysan Albatross and Black-footed Albatrosses breed side by side on the same islands.

Occasionally birds are seen that by some are believed to be hybrids between the two species, but there is some controversy to that.

An article about these birds and about variation and color aberrations in Laysan and Black-footed albatrosses by Tristan McKee and Peter Pyle:

<http://elibrary.unm.edu/sora/NAB/v056n02/p00131-p00138.pdf>

As far as Joe knows, birds like this have not been seen in CA waters. However, sometimes when there are claims of Short-tailed Albatross, the question is whether or not the bird may have been a hybrid gets raised. A couple of things in such a hybrid would be wrong for Short-tailed Albatross: the size would be the same as Black-footed or Laysan. Those are about the same size. A good Short-tailed should have a pale tip to the bright bubblegum pink bill.

Shy Albatross

OCCURRENCE

A southern hemisphere species of which there are about a dozen records in the north Pacific, perhaps five or six records off CA.

Gets its name because it does not follow boats the way most of the other albatrosses do. When Joe was in South Africa the Shy Albatrosses were true to their name seldom coming in close to the boat. But when he was in Australia, Shy Albatrosses came right in, they came into the chum and even allowed to pull them out of the water in dip nets and take them onboard the boat and put bands on them and measure their weight and their size. When released they just sat in the water waiting for more chum. The leaders on the trip, the Southern Ocean Seabird Study Organization, did the handling. These are boat trips that go monthly out of Wollongong into the Tasman Sea. They are fantastic trips. New Zealand probably has the best pelagic trips.

SPLIT INTO SEVERAL SPECIES IN AUSTRALIA

The Australians have followed a novel taxonomy which splits many of the albatrosses that nest on different islands into different species. The AOU and most other authorities tend to consider these as subspecies, but it is not at all clear what a species is when you are talking about a bird that nests only on one island versus another bird that looks different that nests on a different

island. There is no opportunity for hybridization because they are geographically isolated. You can do some biochemistry to see how different they are, you can look at their behavior, it really matters as to whether or not you want to emphasize the differences, and the differences have an advantage when we are talking about conservation. The Southern Oceans Seabird Study Association (SOSSA) is very concerned about conservation. A lot of albatrosses are killed in long-line operations. These long lines have hooks that are baited and the albatrosses grab hold of these hooks, get hooked with the plates on their bills, hauled out and injured and killed. Some of these different species are almost impossible to identify in the field. There are a number of papers that have been written that question their validity. When Joe was in Australia they were identifying every one of these brand new species. They had several varieties of Shy Albatross that they called other things. Very little of the field identification side of this has been published and some of it remains controversial.

The former Shy Albatross (*Diomedea cauta*) has been split into four species as follows:

1. **Shy Albatross** (*Thalassarche cauta*)
2. **White-capped Albatross** (*Thalassarche steadi*)
3. **Salvin's Albatross** (*Thalassarche salvini*)
4. **Chatham Albatross** (*Thalassarche eremita*).

On Joe's trip, most birds of this group were White-capped, with one each of Shy and Salvin's recorded. White-capped is almost identical to Shy, but has less yellow in the bill. The young birds are really tricky to tell apart. The best way to tell White-capped from Shy is the amount of black at the tip of the underwing. Shy has more white extending as a point, where White-capped is darker there (similar to Salvin's) at all ages. Young Shy also tend to have whiter heads than White-capped. Salvin's has a more grayish head. Salvin's occurs all the way over to South America.

Joe also saw these birds in South Africa. Again, White-capped and Shy occurred regularly, but are difficult to separate at sea.

The birds seen off CA have been both Salvin's and Shy. Joe is not sure if White-capped has been seen or if it could be identified from Shy.

FIELD MARKS

Quite large. When you have direct comparison it is noticeably larger than Laysan or Black-footed.

A white albatross with a grayish head.

Underwings pretty much pure white except for a small dark thumb print often visible right where the leading edge of the wing meets the body.

Salvin's: grayish head with a white cap, grayish collar, rather bone-colored bill.

Yellow-nosed Albatross

OCCURRENCE

The albatross most likely to be encountered off the eastern states. It is thought that some claimed Black-browed Albatrosses are misidentified Yellow-nosed.

Another southern hemisphere species. It ranges irregularly into the north Atlantic. Most of the albatross records from the eastern seaboard are of Yellow-nosed. And yet it is very rare in Europe, where they tend to get Black-browed.

Joe is not aware of any claims of Yellow-nosed or Black-browed in the north Pacific.

FIELD MARKS

The bill is dark even on the adults. It gets its name from the yellow on the culmen (the ridge on the top of the bill).

In Australia Joe saw **Indian Yellow-nosed Albatrosses**. They have separate species they believe. Those have a whiter head than the **Atlantic Yellow-nosed Albatross**. Joe saw a darker head on an Atlantic bird out of Cape Town.

Black-browed Albatross

OCCURRENCE

Never been recorded in the north Pacific.

Has been recorded in the north Atlantic.

There is a population in the Indian ocean. Joe saw lots of them off South Africa and off Australia. Ranges rarely into the north Atlantic where most of the records are from Europe, including one bird that lived in a Gannet colony on the British Isles for several decades, a bird that was lost in the wrong ocean and was never able to find a mate.

There are numerous claims in the eastern US, most of which have been rejected by global and state records committees. There is apparently one bird that has been well photographed somewhere off the middle Atlantic states. There may be a couple of valid records.

Has been found in essentially every ocean except the north Pacific. One possible reason is that if one of these showed up in the north Pacific it might be overlooked as a Laysan.

FIELD MARKS

Looks a lot like a Laysan Albatross.

Yellow bill, however the tip of the bill is usually paler, often with a reddish cast instead of the darker tip on Laysan.

Underwing pattern different, ragged and somewhat darker on the Laysan.

Head whiter on Black-browed, but younger Black-browed can have grayish heads and much more extensive dark areas in the underwings, so they can definitely be confused with Laysan.

Also split by the Australians. There were at least two different kinds off Australia. One of them was called **Campbell's Island Albatross**. It looked the same as the Black-browed Albatrosses but had a light colored eye.

Light-mantled Albatross

p.466

Photographed on a boat trip that Joe was on. The only record in the northern hemisphere. The record was accepted by the AOU checklist committee but rejected by the ABA Checklist Committee because of questions regarding its natural occurrence. These birds can get caught on fish hooks and are sometimes brought on board on boats, sometimes kept as pets, it was thought that there was not enough of a pattern to suggest that this bird could occur naturally in the north Pacific. There was however nothing about the bird that suggested captivity. The California Committee accepted the record.

Account on Joe's website.

Wandering Albatross

p.467

Also a southern hemisphere species.

One of the so called great albatrosses.

The Royal Albatross looks a lot like it but gets to be an adult in one or two years.

The reason it is in our book is a record at Sea Ranch in 1967.

No ornithologist or birdwatcher ever saw it. There is a golf course right on the ocean at Sea Ranch, and this albatross came in and landed on the golf course and stood there for two days.

People could walk right up to it. A lot of people made note of it and the local weekly newspaper came over there and took pictures of it. They published the pictures on the front page with a headline saying "Big Goony Gird lands at Sea Ranch". That newspaper got to an ornithologist at UC Berkeley whose jaw dropped when he saw it. All of the key field marks could be seen on the newspaper photographs.

It is odd for the only record of a species to be an adult, especially in a species like this which takes maybe 15 years to get its fully adult aspect.

FIELD MARKS

Notice the big bubblegum pink bill and compare to an adult Short-tailed.

The underwing on the Short-tailed is just the same as on the Wandering.

There is a little bit more white on the upperwing on the Short-tailed than there is on the Wandering, especially in some of the lesser coverts. However, the only Short-taileds that have been seen off CA are dark immatures.

Another species that has been split by the Australians:

The former Wandering Albatross (*Diomedea exulans*) has been split into five species

1. **Wandering Albatross** (*Diomedea exulans*)
2. **Tristan Albatross** (*Diomedea dabbenena*)
3. **Antipodean Albatross** (*Diomedea antipodensis*)
4. **Gibson's Albatross** (*Diomedea gibsoni*)
5. **Amsterdam Albatross** (*Diomedea amsterdamensis*)

Most of the birds that Joe saw in Australia were Gibson's Albatrosses.

A lot of the Gibson's were adults. They retain streaking on the crown even as full on adults. Joe never figured out how he was supposed to identify the immatures, except that Gibson's is a slightly smaller bird with a rounder head and less robust bill.