Introduction to Seabirds

I. Marine Birds
   a. Order Sphenisciformes- Penguins
      i. Family Spheniscidae – 16 species
         1. Flightless, aquatic birds with dark upperparts and white underparts
         2. A think layer of blubber present
         3. Wing propelled underwater divers (wings modified as flippers) and clumsy on land
         4. Occurs only in the southern hemisphere on continental, coasts, subantarctic islands, New Zealand and the Galapagos.

   b. Order Gaviiformes- Loons
      i. Family Gaviidae – 5 species
         1. Loons are large, fish-eating, foot propelled diving birds.
         2. Have difficulty taking off from the water and often dive when disturbed
         3. Awkward on land and seldom come ashore except when nesting
         4. Nest on tundra and inland lakes
         5. Winter along the coast and on large lakes
            a. Common Loon Gavia immer
            b. Pacific Loon Gavia pacifica
            c. Red-throated Loon Gavia stellata

   c. Order Podicipediformes- Grebes
      i. Family Podicipedidae – 20 Species
         1. Cosmopolitan family, one or more species occurring on all major land masses except Antarctica.
         2. All breed on fresh water, some migrate to coastal waters in Winter
         3. Foot propelled underwater diver with lobed toes
         4. No functional tail
            a. Western Grebe Aechmophorus occidentalis
            b. Horned Grebe Podiceps auritus
            c. Eared Grebe Podiceps caspicus
            d. Pied-billed Grebe Podilymbus podiceps
            e. Red-necked Grebe Podiceps grisengena

   d. Order Procellariformes- The Tube Noses- all have external tubular nostrils, all are pelagic birds nesting on remote island or inaccessible mainland coasts
      i. Family Diomedeidae- Albatrosses- 13 Species
         1. Large seabirds with very long, narrow pointed wings
         2. Three species nest in the northern Pacific, the remainder nest in the southern hemisphere.
         3. Colonial nesters, they lay a single egg in a concave mound of mud, or a depression in the ground.
4. Air currents are essential to maintain flight
5. In low wind speeds they usually rest on the water
6. They need to run along the surface to become airborne.
   a. Black-footed Albatross  *Diomedea nigripes*

ii. **Family Procellariidae** - Shearwaters, fulmars, gadfly petrels and prions - 55 species
   1. The nostrils are enclosed in a tube or tubes on top of the bill
   2. Sexes and age classes are similar in appearance.
   3. Occur in all oceans of the world.
   4. Some species capable of underwater flight
   5. Prions hydroplane
      a. Northern Fulmar  *Fulmaris glacialis*
      b. Sooty Shearwater  *Puffinus griseus*
      c. Short-tailed Shearwater  *Puffinus tenuirostris*
      d. Pink-footed Shearwater  *Puffinus creatopus*

iii. **Family Hydrobatidae** - Storm Petrels – 20 species
    1. The smallest petrels, they occur in all oceans of the world.
    2. They swoop and glide, and flutter near the surface of the water.
    3. They cannot swim underwater and nest in burrows on islands.
       a. Leach’s Storm Petrel  *Oceanodroma leucorhoa*
       b. Fork Tailed Storm Petrel  *Oceanodroma furcata*
          i. Both breed along the Oregon coast

iv. **Family Pelecanoididae** - Diving petrels – 4 species
    1. Restricted to the southern hemisphere
    2. Wing propelled underwater divers
    3. The paired nostrils open upward rather than forward

e. **Order Pelecaniformes** - Pelicans and allies - large aquatic fish-eating birds with all four toes webbed
   i. **Family Phaethontidae** - Tropicbirds 3 species
      1. Occur in tropical and subtropical latitudes of all three major oceans.
      2. Adults have distinctive long tail streamers.
      3. Plunge divers; cannot walk on land

   ii. **Family Pelecanidae** - Pelicans- 8 species
      1. The bill shape is characteristic of these birds
      2. There is a large distensible gular pouch on the lower mandible
      3. Plunge divers
      4. Distribution is nearly world wide in tropical and temperate regions
      5. Flocks fly in lines and alternate several flaps with a glide
      6. Can walk on land
a. Brown Pelican  *Pelecanus occidentalis*

iii. **Family Sulidae**- Boobies and Gannets- 9 species  
1. Deep plunge divers which are able to walk on land  
2. Nest in colonies in temperate (gannets) and subtropical and tropical (boobies) regions.

iv. **Family Phalacrocoracidae**- Cormorants and shags- 33 species  
1. Underwater foot propelled divers  
2. Feathers not completely waterproof and they are thus frequently seen drying their wings in a typical spread eagle posture  
3. Occur in both hemisphere along temperate and tropical coasts and inland waters  
4. Nest on cliffs, islands and in trees.  
   a. Pelagic Cormorant  *Phalacrocorax pelagicus*  
   b. Brandt’s Cormorant  *Phalacrocorax ursinus*  
   c. Double-Crested Cormorant  *Phalacrocorax auritus*

v. **Family Fregatidae**- Frigate birds- 5 species  
1. Large, highly aerial seabirds  
2. Exceptional dynamic soarers  
3. Cannot swim or walk  
4. Legs are small and weak  
5. Feathers are not water resistant  
6. Tropical and subtropical distribution

f. **Order Anseriformes** (waterfowl)  
   i. **Family Anatidae**- Ducks, geese and swans – 148 species  
      1. **Subfamily Anatinae** – diving ducks, bay ducks and mergansers  
         a. Divers group of water birds with a cosmopolitan distribution  
         b. Foot propelled divers which can also walk on land  
         c. Common Scoter  *Melanitta nigra*  
         d. White winged Scoter  *Melanitta deglandi*  
         e. Surf Scoter  *Melanitta perspicillata*  
         f. Red-breasted Merganser  *Mergus serrator*

g. **Order Charadriiformes**- Shorebirds, Gulls, Jaegers, Skuas and Alcids  
   i. **Family Chionididae**- Sheathbills- 2 species  
      1. One species from Antarctic peninsula, the other from the subantarctic island of the Indian Ocean  
      2. Feed are not webbed
   ii. **Family Haematopodidae** Oystercatchers- 7 species  
      1. Long laterally compressed bills used to gather invertebrates  
      2. Marine coastal habitats in both temperate and tropical areas  
      3. Cannot swim, wades  
         a. Black Oystercatcher  *Haematopus palliates*
   iii. **Family Charadriidae** Plovers- 64 species  
      1. Plump shorebirds with large head and eyes and short bills
2. Worldwide distribution, many winter along coasts and inland
   a. Killdeer *Charadrius vociferous*
   b. Black-Bellied Plover *Pluvialis squatarola*
   c. Snowy Plover *Charadrius alexandrinus*

iv. Family *Scolopacidae* – Sandpipers and phalaropes – 8 species
1. A large and diverse family of wading and upland birds
2. The majority feed by probing soft sediments with their bill
3. World wide distribution (sandpipers), Arctic and N. American plains (Phalaropes)
4. Majority nest inland and winter along coast
5. Common in flocks
   a. Sanderling *Calidris Alba*
   b. Ruddy Turnstone *Arenaria interpres*
   c. Black Turnstone *Arenaria melanocephala*
   d. Red Phalarope *Phalaropus fulicaria*
   e. Red-necked Phalarope *Phalaropus lobatus*

v. Family *Recurvirostridae* Avocets and stilts – 6 species
1. Long billed shorebirds which feed in shallow water
2. Distributed in both hemispheres
   a. Black-necked Stilt *Himantopus mexicanus*
   b. American Avocet *Recurvirostra American*

vi. Family *Laridae* - Gulls, kittiwakes, terns, skimmers, jaegers and skuas – 96 species
1. Many are colonial, nesting on cliffs, islands, in trees, depressions in the ground or buildings
2. Family is divided into four distinct groups
   a. Jaegers and skuas
      i. Live at sea and breed in the Arctic and Antarctic
      ii. Adult jaegers have elongated central tail feathers
   b. Gulls
      i. Found on the coast and wetlands
      ii. Opportunistic feeders
      iii. Smaller species take 1 to 2 years to reach maturity
      iv. Larger ones take longer
   c. Terns
      i. Slender, buoyant flyers with pointed wings and forked tails
   d. Skimmers
      i. Distinguished by a lower mandible larger than the upper
   e. Western Gull *Larus occidentalis*
   f. Glaucous-winged Gull *Larus glaucescens*
g. California Gull  
   Larus californicus
h. Ring-billed Gull  
   Larus delawarensis
i. Heerman’s Gull  
   Larus heermanni
j. Bonaparte’s Gull  
   Layrus philadelphia
k. Sabine’s Gull  
   Xema sabini
l. Arctic Tern  
   Sterna paradisaea
m. Common Tern  
   Sterna hirundo
n. Caspian Tern  
   Hydroprogne caspia

vii. Family Alcidae- Auks and their allies- 22 species
1. Small to medium sized
2. Chunky seabirds
3. Wing-propelled divers
4. Restricted to the northern hemisphere
5. Aerial flight is characterized by short, fast wing beats
6. Majority have distinct seasonal plumages
7. Colonial nesting is common
8. Some species are nocturnal at the colony
   a. Common Murre  
      Uria allge
   b. Pigeon Guillemot  
      Cepphus columba
   c. Tufted Puffin  
      Fratercula cirrhata
   d. Rhinoceros Auklet  
      Cerorhinca monocerata
   e. Cassin’s Auklet  
      Ptychoramphus aleuticus
   f. Marbled Murrelet  
      Brachyramphus marmoratus