Cockatoos

Introduction

This display provides an overview of the superfamily of birds known as Cockatoos (Cacatuoidea).

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In the card below, the Cockatoos are the two birds with crests. The Palm Cockatoo is the black bird. The Sulphur-crested Cockatoo is the white bird. They and the other birds are members of the order Psittaciformes (Parrots).

Palm Cockatoo and Sulphur-crested Cockatoo with other members of the Order Parrots

References
1. Cockatoo Family Trees

1.1 Relationship of Cockatoos with Birds and Other Parrots.

Phylogeny is the evolutionary relationship of biological species with one another. The diagram below shows the parrot superfamilies, including that of the cockatoos, and how they are related to other birds.

Cockatoos (Cacatuoidea) are one of three superfamilies in the order Parrots (Psittaciformes).

Class: Birds

Aves

The Blue Crane is in the order of "crane-like" birds, the Gruidae. They and the Parrots are part of a clade consisting of all modern birds, the Neoaves.

The bird above is a Cape Wagtail. This bird is in the order of perching birds (Passeriformes). Like cockatoos and other parrots they are capable of vocal learning.

Cockatoos and macaws are in the same order.

Order: Parrots

Psittaciformes

Parrot Superfamilies

New Zealand Parrots

Strigopoidea

The ancestors of New Zealand Parrots formed the earliest superfamily. These are a Kea and a Kaka.

Other Birds

Aves

Red orange

Cockatoos

Cacatuoidea

True Parrots

Psittacoidea

25

400

100

50c
1. Cockatoo Family Trees

1.2 The Cockatoo Family and Subfamilies

There is only one family in the superfamily *Cacatuoidea* (Cockatoos), the *Cacatuidae* (the English name is the same, Cockatoos). The family contains three subfamilies. This diagram shows how they are related to one another.

- **Cacatuidae** diversified into subfamilies as their climate became more arid.
- 33.5 mya

```
\[ \rightarrow \text{Cockatoos} \]
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- 21.6 mya

```
\[ \rightarrow \text{Palm and White Cockatoos} \]
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- 19.3 mya

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\[ \rightarrow \text{Palm Cockatoo} \]
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- 15.2 mya

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\[ \rightarrow \text{Red Tailed Cockatoo} \]
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- 22.2 mya

```
\[ \rightarrow \text{Black Cockatoos} \]
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- 33.5 mya

```
\[ \rightarrow \text{Cockatiels} \]
```

- mya = million years ago.

The nodes represent the time at which the ancestors of cockatoos became distinct from other parrots and when the ancestors of the three subfamilies diversified.

**Cockatiel**

*Nymphicus hollandicus*

*Nymphicus* is the only genus and *hollandicus* the only species in the *Nymphicinae* subfamily.
1. Cockatoo Family Trees

1.3 The Cacatuinae Tribes

One of the subfamilies of cockatoos, the *cacatuinae*, formed two tribes; the Palm Cockatoos (*Microglossini*) and the White Cockatoos and allies (*cacatuini*). 

- 21.6 mya: Palm and White Cockatoos *Cacatuinae*
- 19.3 mya: Palm Cockatoos *Microglossini*
- 14.6 mya: White Cockatoos and Allies *Cactuini*

The species on the right and immediately below are Sulphur-crested Cockatoos.

*Proscigcer* is the only genus in the *Microglossini* tribe.

These four birds (left and below) are White Cockatoos (*Cacatuca*).

The two species below are Yellow-crested Cockatoos.

Some of the birds in the *cacatuini* tribe have pink plumage, like the Major Mitchell’s Cockatoos above.
2. Types of Cockatoo

The parrot superfamilies are divided into families, sub-families and tribes, with the genera and species distributed amongst them.

There is only one family in the cockatoo superfamily (*Cacatuoidea*); the Cacatuidae. Within this family there are three subfamilies, which are listed below in order of their philology, i.e. the order in which their ancestors evolved.

2.1 Nymphicinæ

There is only one genus and species in this subfamily, the Cockatiel (*Nymphicus hollandicus*).

![Cockatiel (Centre) and True Parrots](image)

*Nymphicus hollandicus et Psittacoidea*

This is the earliest and smallest of the Cockatoos. They are 30 to 33 cm (12 to 13 in) long.

The bright orange cheek patch on a white background indicates that this bird is a male.

![Cockatiel](image)

*Nymphicus hollandicus*

This Cockatiel has the characteristic plumage of the wild bird.

The blue tinge of this Cockatiel’s plumage suggests that it was bred in captivity. Blue is one of 22 colour mutations.
2. Types of Cockatoo

2.2 Calyptorhynchinae

This is a subfamily of dark cockatoos that has one genus. There are five species belonging to two subgenera listed below.

2.2.1 *Calyptorhynchus* – Black and Red Cockatoos.

<table>
<thead>
<tr>
<th>Red-tailed Black Cockatoo</th>
<th>Glossy Black Cockatoo</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Calyptorhynchus banksii</em></td>
<td><em>Calyptorhynchus lathami</em></td>
</tr>
</tbody>
</table>

*C. banksii* have large powerful bills that can cut a brazil nut quickly and easily, shearing it like a laser.

The population *c. lathami* on Kangaroo Island, Australia, are under threat from the 2019-2020 bush fires.

2.2.2 *Zanda* – Black and Yellow/White Cockatoos.

<table>
<thead>
<tr>
<th>Yellow-tailed Black Cockatoo</th>
<th>Funerous refers to the birds’ dark plumage; as if dressed for a funeral.</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Calyptorhynchus funereus</em></td>
<td></td>
</tr>
</tbody>
</table>

*C. funereus* prefer to breed in the southwest Australia where rainfall is over 300 mm/year.

The *C. lathami* population on Kangaroo Island, Australia, are under threat from the 2019-2020 bush fires.

<table>
<thead>
<tr>
<th>Carnaby’s Black Cockatoo</th>
<th>Baudin’s Black Cockatoo</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Calyptorhynchus latirostris</em></td>
<td><em>Calyptorhynchus baudinii</em></td>
</tr>
</tbody>
</table>

*Baudin’s* or Long-billed Black Cockatoos occupy a smaller range of southwest Australia than *Latirostris*. 
2. Types of Cockatoo

2.3 Cacatuinae

The third subfamily contains the black palm and white/pink/grey cockatoos. There are two tribes listed below.

2.3.1 Microglossini.

The Palm Cockatoo is the only species in the Microglossini tribe. It is also known as the Goliath Cockatoo, because of its large size of 55 to 60 cm.

Palm Cockatoo
Probosciger aterrimus

Helio-Vaugiraud Proof
1949
2. Types of Cockatoo

2.3.2 Cacatuini.

The Cacatuini tribe contains four genera. These are listed below.

2.3.3.1 Callocephalon.

There is just one species, the Callocephalon fimbriatum, the Gang-gang cockatoo.

2.3.3.2 Eolophus.

The only species is Eolophus roseicapilla, the Galah.

Gang-gang Cockatoo
Callocephalon fimbriatum

This is the earliest species of cacatuini to evolve., the grey colour indicating close kin with earlier black cockatoos.

Galah Cockatoo
Eolophus roseicapilla

The Galah (right) and Major Mitchell’s Cockatoo (below) are seen as early offshoots of white cockatoos that have retained their pink colour.

2.3.3 Lophochroa.

There is again just one species, Lophochroa leadbeateri. This bird is known as Leadbeater’s or Major Mitchell’s Cockatoo.

Major Mitchell’s Cockatoo
Lophochroa leadbeateri
2. Types of Cockatoo

2.3.3.4 *Cacatua.*

The Cacatua genus of mostly white cockatoos is divided into two sub-genera. These are listed below.

2.3.3.4.1 *Licmetis* - Corellas.

There are six species of Corellas, two of which are illustrated in the stamps below.

**Red-vented cockatoo**  
*Cacatua haematopusygia*

Native to the Philippines, Red-vented Cockatoos are also known as Kalangays. The population is critically endangered due to trapping for the caged bird trade.

**Ducorp’s or Solomon’s cockatoos** are one of the smaller cockatoos (30 cm long).

**Ducorp’s Cockatoo**  
*Cacatua (Licmetis) ducorpsii*

24 May 1965      
Watermark sideways 1966

**Long-billed Corella**  
*Cacatua (Licmetis) tenuirostris*

Native to Australia this Corella uses its bill to dig for roots and seeds.
2. Types of Cockatoo

2.3.3.4.2 Cacatua – true white cockatoos.

There are five species of true white cockatoos, three of which are illustrated in the stamps below.

Sulphur-crested cockatoo
*Cacatua (cacatua) galerita*

The Sulphur-crested Cockatoo does not have the yellow or orange cheek patches seen in the Yellow-crested Cockatoos below.

Yellow-crested cockatoo
*Cacatua (cacatua) sulphurea*

The two birds on the right are probably members of the sub-species *Citroneristata* or Citron-crested Cockatoo.

Salmon-crested Cockatoo
*Cacatua (cacatua) moluccensis*

Also known as the Moluccan Cockatoo this bird is endemic to Saram in Indonesia. It is among the largest of the white cockatoos (46-55 cm long).
3. Morphology and Behaviour

3.1 Feet, Crests and Plumage

Cockatoos (Cacatuoidea) and Parrots (Psittaciformes) possess zygodactyl feet (two toes in front and two behind) which allow them to ..... Palm Cockatoo on a Perch

Probosciger artrrinus

......not only perch. Sulphur-crested
cockatoo holding food.

......but grasp, items such as food.

Cockatoos also have features that distinguish them from other parrots.

They have a crest which they can control for display and raising the alarm.

Palm Cockatoo showing off its crest

Sulphur-crested Cockatoo raising its crest.

Most cockatoos have white, grey or black feathers. The Galahs spread pigment dye across their feathers, which combined with melanin produces the deep pink colour.

Black Cockatoo Feather

Galah with Pink Colouretion

Cockatoos do not possess the Dyck texture that causes the blue and green feathers seen on most other parrots.

Red and Green Macaw

Ara chloroptera

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3. Morphology and Behaviour

3.2 Group Behaviour

**Sulphur-crested cockatoos**
*Cacatua (cacatua) galerita*

Many species such as the Sulphur-crested Cockatoo and Galahs travel around and feed in large flocks.

**Galah**
*Eolophus roseicapilla*

Grey dash above "L" of "AUSTRALIA" on the top stamp. Helicon paper grey cylinder variety LrSh 3/7.

*Sulphur-Crested Cockatoo in a Tree*
*Cacatua (cacatua) galerita*

When the flock is on the ground feeding, there is often another bird up in a tree or perched high up keeping guard. This bird will call loudly if a predator is seen.
3. Morphology and Behaviour

3.3 Diet

Cockatoos have a wide ranging diet that consists of mainly nuts, nuts, nuts, and seeds.

Sulphur-crested Cockatoo Eating a Walnut
*Cacatua (cacatua) galerita*

Cockatoos, like other parrots, will often invite other birds and humans to preen their head feathers by indicating them with a foot.

Galah Eating Seeds
*Eolophus roseicapilla*

The diet of the Palm Cockatoo includes the fruit of the Pandanus tree.

Palm Cockatoo
*Probosciger arترímus*

Pandanus Trees
4. Distribution and Habitat

4.1 Country of Origin and Favoured Habitat

Sulphur-crested Cockatoos
flying amongst Eucalyptus Trees

All of the cockatoos reside in Australasia and many are indigenous to Australia.

They usually prefer areas where there are trees to provide nest sites and food.

Some species such as the Sulphur-crested Cockatoo are widespread across Australia.

Palm Cockatoo and the Rainforest
Probosciger aterrimus

Protected Birds 2008

Papua New Guinea

This is because they can tolerate areas with fewer trees.

Other species are restricted to parts of Australia or a few islands in Indonesia.

Sulphur-crested Cockatoos
and Plane Trees

Ducorp’s Cockatoo
Cacatua (Licmetis) ducorpsii

For instance the Ducorp’s Cockatoo is only found on the Solomon Islands.

Red-vented Cockatoo
Cacatua haematuropygia

...and the Red-vented Cockatoo is only found in the Philippines.
5. Relationship with Humans

5.1 Impact of Exploration

Human exploration and technology can lead to a reduction in suitable habitat for parrots, including cockatoos.

**Galahs and the Explorers**

*Hamilton Hume and Captain William Hovell*

![Stamps: Galahs and Exploration](image)

Galahs waiting for an opportunity to steal or beg some food from tourists.

**Cockatoos by an Airfield**

*Cacatuidae*

![Stamps: Cockatoos by Airfield](image)

However, several species are quite bold and can benefit from the presence of humans in their territory.

5.2 Cockatoos and the Arts.

Cockatoos feature in art... and cartoons.

**Galah**

*Eolophus roseicapilla*

![Stamps: Galah Art](image)

**Major Mitchell’s Cockatoo in a Batik Design**

![Stamp: Batik Design](image)

**Sulphur Crested Cockatoo**

*Cacatua galerita*

![Stamps: Sulphur Crested Cockatoo](image)
5. Relationship with Humans

5.3 Pets

With care (some birds live a long time) and with training cockatoos make excellent pets, but they can be very noisy and demanding of attention and activity.

Boy with a Palm Cockatoo
*Probosciger aterrimus*

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**Yellow ‘Lutino’ Cockatiel**
*Nymphicus hollandicus*

Humans breeding birds for aviaries and as pets have developed 22 colour mutations of cockatiels including yellow.