

Avian Models for 3D Applications
Characters and Procedural Maps by Ken Gilliland

Songbird ReMix ParrotsVOLUME 1: PARROTS of the WORLD

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Songbird ReMix ParrotsVOLUME 1: PARROTS of the WORLD

Manual

Introduction

Parrots of the World adds 15 new unique parrots to the Songbird ReMix library. Using the powerful morphs from the Songbird ReMix Parrot model, texture maps and versatile conforming crests and tails, the represented birds are portrayed more accurately and with a stronger degree of realism. These fifteen parrots span the globe covering all five continents the parrots are endemic to. The species range from the very popular African Grey and Yellow Amazon Parrots to the endangered Thick-billed and the elusive and probably extinct Night Parrots. Whether you're creating household environments, lush jungle scenes or buccaneer tales, Parrots of the World is the perfect addition to any rendered imagery.

Overview and Use

The set is located within the **Animals : Songbird ReMix** folder. Here is where you will find a number of folders, such as **Bird Library**, **Manuals** and **Resources** . Let's look at what is contained in these folders:

- Bird Library: This folder holds the actual species and poses for the "premade" birds. Birds are placed into a "type" folder (such as "Birds of Prey (Order Falconiformes)" which for example would hold falcons, hawks and eagles). The birds for this set can be found in the following folder(s):
 - Parrots and Cockatoos (Order Psittaciformes)
- o **Manuals:** Contains a link to the online manual for the set.
- o **Props:** Contains any props that might be included in the set
- Resources: Items in this folder are for creating and customizing your birds
 - Bird Base Models: This folder has the blank, untextured model(s) used in this set. These models are primarily for users who wish to experiment with poses or customize their own species of bird. When using physical renderers such as Iray and Superfly, SubD should be turned to at least "3". For DAZ Studios 3Delight renders, the SubD must be turned from the "High Resolution" setting to the "Base" setting (otherwise some areas will render incorrectly transparent).

Poser Use

Select **Figures** in the **Runtime** Folder and go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer *Firefly or Superfly*) folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs. You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library : (Type) : Poses**.

DAZ Studio Use

Go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer (*3Delight or Iray*) folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs. You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library :** (**Type**) : **Poses**. Note: Using the "Apply this Character to the currently selected Figure(s)" option will not properly apply the correct scaling to the bird selected. It is better to delete the existing character first and load the one you want to use.

Physical-based Rendering

Iray and Superfly requires more CPU and memory horsepower than the legacy renderers because of ray-trace bounces and higher resolution meshes needed for displacement. Poser's Superfly renderer will require that the "Min Transparent Bounces" be set to at least 16 and that the "Max Transparent Bounces" be set to at least 32 in render settings. Superfly renders may show artifacts in the head area. This is a known Poser issue and may be addressed in the future. Increasing the SubD may minimize this issue.

Under "Corrective Controls", both Physical Renderer Fix morphs will help to remove artifacts that may show up in renders.

Where to find your birds

Type Folder	Bird Species
Parrots and Cockatoos (Order Psittaciformes)	All Parrots and Cockatoos

Where to find your poses

Type Folder	For what species?
Parrots and Cockatoos (Order Psittaciformes)	All Parrots and Cockatoos

Posing Considerations

This volume has various species, so when using generic poses not every pose will work perfectly with every bird. You may find that some minor alteration on the stock poses may be warranted.

Here are some of the most common alterations you may need to make:

- Birds will not be flat on the zero plane for those who use the "Shin Size" control.
- The Beak Open/Close control is highly variable depending on the other shaping morphs used on the beak. Turning this control to a full "1" to close will usually be too much; "0.8" is almost always a better setting.

Specific Bird Controls

There are several controls with the **Action Controls** section of the model that are specific to certain species of bird.

- Under Crest Controls (in Action and Creation Controls):
 - **Crest Controls** are used the Cockatoos in this set. Both Cockatoos use Crest 3 so the control will be active for Crest 3 on those birds.
- Raise Upper Beak (in Action Controls):
 - This morph is a "one size fits all" control. Because of the variety of beak shapes. It may not work with all birds

IK Concerns

Some poses may go askew when IK is turned on. By default, Poser's IK feature is turned off when loading a bird. To turn it on, select the "Figure" category from the main tool bar and "Use Inverse Kinematics" from the submenu.

By default, DAZ Studio's IK feature is turned on when loading a bird. This will cause the thigh and shin rotations change when the character is moved. The **CTRL K** keypress will turn IK on and off in DAZ Studio or right clicking the figure and choosing from the drop down menu. You may have to re-apply your pose if you move the bird with IK on.

Subdivision and Poser

Poser 11's subdivision tool does not like the crests on the parrot base. Trying to render them with subdivision will literally take days to achieve your render. For expediency's sake, they have been coded to not subdivide with the rest of the model. Subdivision on the crests does not add appreciable results anyways.

Songbird ReMix ParrotsVOLUME 1: PARROTS of the WORLD

Field Guide

Africa

Black-cheeked Lovebird Cape Parrot Congo African Grey Parrot

The Americas

Double Yellow-headed Amazon Parrot
Patagonian Conure
Thick-billed Parrot
Yellow-faced Parrotlet

Australia

Crimson Rosella
Galah
Night Parrot
Red-tailed Black Cockatoo

Indonesia & Asia

Golden-mantled Racquet-tail Parrot
Long-tailed Parakeet
Plum-headed Parakeet
Red and Blue Lory

Common Name: Black-cheeked Lovebird Scientific Name: Agapornis nigrigenis

Size: 5 to 5 ½ inches (13-14 cm)

Habitat: Africa; endemic to southwest Zambia.

Found in medium-altitude deciduous woodlands, dominated by mopane (*Colophospermum mopane*), but only where adjacent to woodland dominated by Rhodesian Teak (*Baikiaea plurijuga*). Lovebirds use Mopane trees in the dry season and Teak in the rains. These are usually within reasonable distance of reliable water source, at which birds drink daily.



Status: Vulnerable. **Global Population:** 2,500-9,999 mature adults. With a small population to begin with, the population loss from the 20th century pet trade, being considered a crop pest and the loss of available water due to human uses has brought this species toward extinction in the wild. The current estimated total is divided into two

subpopulations, 6,200 in the southern and 3,800 in the northern portions of Kafue National Park.

Diet: Food largely consists of crop seeds (sorghum, millet, maize etc), wild tree fruits and seeds.

It needs daily access to water, in the dry season, congregating in large flocks to search for available water. Lovebirds will drink at the same water-point in the early morning and late afternoon. Flock sizes of birds at drinking sites range from 1 to 175 individuals. Birds from one locale all drink at the same waterhole. Black-cheeked Lovebirds are vigilant and highly cautious drinkers and won't drink at waterholes that have been disturbed by humans or livestock.

Breeding: Females are slightly larger than males. The forehead and crown are dark reddish brown with the hind-crown and nape being yellowish-green. The cheeks and throat are blackish-brown with a white eye-ring and a red bill. The upper breast is orange pink with the rest being green. The tail has some inconspicuous pale orange and blackish barring (which is sometimes concealed). Immatures have black marks on base of upper mandible. Juveniles of the species are similar but with a more orange bill.

They breed in cavities within mature *Mopane (Colophospermum)* trees near roosting sites. Breeding occurs from November to December in Zambia. Three to eight eggs are laid with incubation lasting about 24 days. Nestlings fledge after 41 days.

Cool Facts: Vocalizations are loud, piercing shrieks, which are very similar to those of other lovebirds.

The black-cheeked lovebird is relatively easy to breed in aviculture, but there was little interest in breeding them during the first half of the twentieth century at a time when imports were numerous. Now they are uncommon in aviculture and uncommon as pets

Common Name: Cape Parrot

Scientific Name: Poicephalus robustus

Size: 12-14.2 inches (30-36 cm)

Habitat: Africa; Southeastern portion of South Africa (southern KwaZulu-Natal and eastern Cape Provinces)

The Cape Parrot lives in Afro-montane forests (dominated by *Podocarpus* species that occur at 1000-1500m altitude on steep, south-facing slopes on dolerite ridges that receive frequent mist in the summer), but are not confined to it.



Status: Vulnerable. **Global Population:** 730-1,200 adults with a stable population trend. Declines caused by habitat loss (clearance of Afromontane forest and selective logging of mature Afrocarpus (Podocarpus falcatus, P. latifolius and P. henkelii) trees for timber) and trade in live birds (the latter evidently continuing throughout 20th century). Persecution throughout range, due to perception that the species damages commercial harvests of pecan nuts, resulted in hundreds of mortalities in the 1970s. Population believed to number 1500-5000 birds, although populations survive in more than ten

conservation areas, in four disjunct populations centred on the Amathole Mountains (Eastern Cape), the Transkei highlands and coastal forest (Eastern Cape), S KwaZulu-Natal in the foothills of the Drakensberg Mountains, and the Magoebaskloof area of Limpopo province. Censuses during 1998–2012 show a slight increase in South Africa, although this may be largely explained by an increase in coverage of suitable habitat and stabilization in the population since 2005. A conservation action plan has been developed for the species.

Diet: Seeds, nuts, berries and nectar. Yellowwood fruits are a major component of the parrots' diet.

Breeding: Head, throat and neck yellowish brown; body and wings dark green; thighs and outer edges of wings orange red; tail and flight-feathers black. Bill large. Some yellow feathers or other plumage abnormality in c. 20% of specimens. Female typically has red forehead. Juvenile has brownish-olive head and neck, reddish ear-coverts, without red on tibia and wing edge.

Recorded Aug–Feb. Nest chiefly in a natural (but secondary) hole in trunk of dead Podocarpus falcatus, other Podocarpus, Erythrina caffra or Acacia melanoxylon, once a live Podocarpus henkellii, typically 6–12 m above ground; nest chamber 66 cm deep and 20 cm in diameter. Species will accept nestboxes, although it appears that it still strongly prefers those sited on dead snags. Monogamous. Clutch 2–5 (usually 3–4) white eggs, size 34–36·4 mm × 27·9–28·7 mm, laid on consecutive days; incubation c. 28–32 days, by female alone; nestling period c. 55–81 days, with young fed by both adults; age of first breeding usually at 4–6 years in captive birds. Breeding success in wild very poorly known, but in one study chick death and nesting failure occurred after heavy rains and cold weather.

Cool Facts: "The Cape Parrot" has now been classified as a distinct species separate from the closely related *Poicephalus fuscicollis*, which is called the "Un-Cape Parrot" by the World Conservation Union (IUCN). The Un-Cape Parrot species has two subspecies, the Brown-necked Parrot (*P. f. fuscicollis*) and the Grey-headed Parrot (*P. f. suahelicus*).

With the Cape parrot being an endangered species, hundreds of volunteers do an annual count in May which they have called the "Cape Parrot Big Birding Day". The populations are difficult to count because the birds' habitats have become fragmented and they often fly long distances for food. The wild population appears to have increased from 500 individuals to over a 1,000 from 2000 to 2006. Over one hundred Cape Parrots are in captive breeding programs and the species survival may rest in its success. It is unusual as a pet parrot. Trade and export of wild-caught Cape Parrots has been made illegal by the international CITES agreement and by South African law.

Common Name: African Grey Parrot **Scientific Name:** *Psittacus erithacus*

Size: 11-15.4 inches (28-39 cm)

Habitat: Africa; endemic to equatorial Africa, including Angola, Cameroon, the Congo, Gabon, Ivory Coast, Ghana, Kenya, and Uganda. The species is found inside a range from Kenya to the eastern part of the Ivory Coast.

Generally found in lowland moist forests; both primary and secondary, including edges and clearings, and also, at times, occupying mangroves, gallery forest, savanna woodland, cultivation.

It is strongly associated with oil-palms (*Elaeis guineensis*) for food and raphia palms overhanging large watercourses for roosts. It also roosts on offshore islands. Although, it prefers secondary forests in Gabon, the highest densities have been found in lowland primary forests, intermediate in montane primary forests, and lowest in coconut plantations.



Status: Endangered. Global Population: 560,000 - 12,700,000 mature individuals with a decreasing trend. It is believed to have undergone rapid population decline over last 50 years. Declines have been noted in Burundi, Cameroon, Ghana, Kenya, Nigeria, Rwanda, São Tomé and Príncipe, Togo (where probably extirpated), Uganda and parts of Congo and the Democratic Republic of the Congo. Between 1982 and 2001,more than 657,000 wild-caught individuals of the African Grey entered international trade.

Approximately 21% of the wild population was being harvested every year. Mortality rates are extremely high between the time they are captured and they reach market, ranging from 60–90% of trapped birds dying before reaching the airport. This species also is hunted for its meat and for its parts, which are used in traditional medicines. As a result of the extensive harvest of wild birds, in addition to habitat loss, this species is believed to be undergoing a rapid decline in the wild and therefore, has been rated as endangered by the International Union for Conservation of Nature.

Range-wide population declines are now thought to have been so severe that the species' global conservation status was revised from Vulnerable to Endangered in 2016. In order to address the threat from the caged bird trade the species was moved to Appendix I in 2016, thus banning international trade.

Diet: Frugivorous, most of their diet consists of fruit, nuts, and seeds. The species prefers oil palm fruit and they eat flowers and tree bark, as well as insects and snails. In captivity, they may be fed bird pellets, a variety of fruits such as pear, orange, pomegranate, apple, and banana, and vegetables such as carrot, cooked sweet potato, celery, fresh kale, peas, and green beans. They also need a source of calcium.

The grey parrot is partly a ground feeder and are extremely social birds, with thousands forming communal nesting areas.

Breeding: Sexes are alike, but males become darker with age than females, and older birds can attain some scarlet feathers in plumage. Albinos have also been reported. Size, notably that of the bill, individually variable independent of age, as is the intensity of the gray and the amount of red, which sometimes extends onto the belly.

There is a bare facial area around eye which is whitish. The head is scaled white on gray feathers extending onto darker gray back and breast. The wings are medium gray with the primaries transitioning to blackish gray. The tail and tail-coverts are bright red. The bill and legs are gray to blackish. The iris is yellow. Immatures have dark red tail tips and under tail coverts are tinged gray. The iris is gray.

Females will lay between 2 and 4 eggs. The male does not tend to the eggs, but provides food for the female while she sits on them. Once the chicks are hatched, both parents tend to them.

Cool Facts: The African grey parrot is also known as the Congo grey parrot, Congo African grey parrot or the grey parrot.

The African Grey is the second-most heavily traded parrot in world (1982–1989) after Fischer's Lovebird (*Agapornis fischeri*).

There are two subspecies of the Grey which appear alike, but are found in different locations.

Subspecies and Distribution:

 P. e. erithacus. First reported by Linnaeus in 1758. The nominate race is found on the Southeastern Ivory Coast eastward to Western Kenya and Northwestern Tanzania and southward to south-central Democratic Republic of the Congo and Cabinda (North Angola), including Bioko and (probably introduced) São Tomé. • *P. e. princeps.* First reported by Alexande rin 1909. This race is found on Príncipe Island, in Gulf of Guinea.

African Greys are highly social species and rely on a flock-type structure, even when raised in captivity. Because they are so dependent on the other birds within their flock, much of their speech and vocal ability is acquired through interaction with the humans with whom they reside. Both wild and captive parrots have been shown to use contact calls, which allow them to interact with their flock mates and communicate information about their location, detection of predators, availability of food, and safety status. In addition, contact calls are used to form strong social bonds with their flock mates, or in the case of captive greys, with their human house mates. In captivity, African Grey parrots have been shown to display communicative competence, meaning they not only use human language correctly, but also in such a way that is appropriate for the social situation in which they are in.

They are highly intelligent and are considered by many to be one of the most intelligent species of parrots. Many individuals have been shown to perform at the cognitive level of a four- to six-year-old child in some tasks. A number of studies have been conducted with African Greys, indicating a slew of higher level cognitive abilities. Experiments have shown that grey parrots can learn number sequences and can learn to associate human voices with the faces of the humans who create them.

Dr. Irene Pepperberg's work with Alex the parrot showed his ability to learn more than 100 words, differentiating between objects, colors, materials, and shapes. Dr. Pepperberg spent several decades working with Alex, and wrote numerous scientific papers on experiments performed, indicating his advanced cognitive abilities. One such study found that Alex had the ability to add numbers as well as having a zero-like concept, similar to that of young children and apes.

In addition to their striking cognitive abilities, African grey parrots have been shown displaying altruistic behavior and concern for others. Researchers found that while blueheaded macaws were unlikely to share a nut with other members of their own species, African Grey parrots would actively give their conspecific partner a nut, even if it meant that they would not be able to get one themselves. When the roles were reversed, their partners were overwhelmingly likely to return the favor, foregoing their own nut to their partners benefits. This indicates not only a display of selflessness but also an act of reciprocity.

Interestingly, some research has shown that foot preference can be linked to the number of words a particular Grey parrot may know and use. Researchers found that African Grey parrots who prefer to use their right foot showed a marked increase in the number of words within their lexicon as compared to parrots who were left-footed. Scientists postulate that parrots may have lateralization of brain function, much like mammals do. Natural predators of the African Grey parrot include a variety of hawks and falcons. Monkeys and other tree-dwelling mammals often steal the parrot's eggs. As a defensive strategy, a flock of parrots will fall silent and then burst from the treetops while shrieking. The chaos and noise deter most predators.

Common Name: Yellow-headed Amazon

Scientific Name: Amazona oratrix

Size: 14.9-16.9 inches (38-43 cm)

Habitat: Central America; found on the coastal slopes of Mexico from the Tres Marías Islands and Jalisco to Oaxaca and from Nuevo León to northern Chiapas and southwestern Tabasco, as well as a disjunct area including most of Belize, and another comprising a small part of northeastern Guatemala and northwestern Honduras.

It prefers riparian forest and areas with scattered trees, as well as evergreen forest in Belize and mangroves in Guatemala.

Status: Endangered. Global Population: 7,000. Their numbers in the wild have been reduced by 90% from 70.000 to 7,000 (mid 1970s to 1994) and to 4,000 by 2004 because of capture for the blackmarket pet trade and habitat destruction. Poachers usually hack at the nest site with a machete to steal parrots, which is especially destructive because habitat is lost at the same time that the wild parrot population is reduced. An estimated 90% of poached Amazons die before they are sold.

Diet: Fruits, seeds, nuts, berries, blossoms, and leaf buds.

Breeding: The shape is typical of amazons, with a robust build, rounded wings, and a square tail. The body is bright green, with yellow on the head, dark scallops on the



neck, red at the bend of the wing, and yellow thighs. The flight feathers are blackish to bluish violet with a red patch on the outer secondaries. The base of the tail also has a red patch, which is usually hidden. The outer tail feathers have yellowish tips.

The bill is horn-colored, darker in immatures of the Belizean subspecies. The eye ring is whitish in Mexican birds and grayish in others. The most conspicuous geographical difference is the amount of yellow. In adults, the head and upper chest are yellow in the subspecies of the Tres Marías Islands (*A. o. tresmariae*); just the head in the widespread subspecies of Mexico (A. o. oratrix); just the crown in Belize (*A. o. belizensis*); and the crown and nape in the Sula Valley of Honduras (*A. o. hondurensis*), which thus resembles the yellow-naped parrot. Immatures have less yellow than adult. They attain adult plumage in 2 to 4 years.

The variety "Magna" (or "Magnum") is bred for more yellow and commands a premium price as a pet. Some "extreme" Magnas have as much yellow as Tres Marías birds, but are distinguished from them by heavier barring on the chest and a less bluish tint to the green plumage.

Yellow-headed Parrots nest in holes in tree trunks or fallen branches. They form communal roosts and nest in an unlined hollow in either a living or dead tree. They lay 2 - 4 oval, glossy eggs. Incubation lasts for approximately 29 days and fledging occurs approximately 2 months later.

Cool Facts: It is also known as the yellow-headed parrot and double yellow-headed amazon. Amazons are widely available and their personalities make them highly desirable pets. Their vocal abilities are generally considered to be bested only by the African Grey.

Subspecies and Distribution:

- A. o. tresmariae. First reported by Nelson in 1900. The "Tres Marias" Amazon is found in Tres Marías Island, off the west-central coast of Mexico. Race tresmariae has longer wings than the nominate (in male), more bluish-green underparts, more extensive yellow on neck and, especially, throat, paler green upper parts, more frequent yellow tips to wing-coverts, inner secondaries and tail, and can show odd red feathers on head
- A. o. oratrix. First reported by Ridgway in 1887. The nominate species, "Yellow-headed Amazon" is found in the lowlands of Mexico, on Pacific (Jalisco to Michoacán, formerly to Oaxaca) and Atlantic (Tamaulipas and San Luis Potosí to Tabasco, Campeche and Chiapas) slopes.
- A. o. belizensis. First reported by Monroe & T. R. Howell in 1966. It is found in Belize and northeastern Guatemala (Petén). Race belizensis shows less yellow on the head than nominate (has all-green cheeks) and none on the throat. It is, on average, probably smaller and has grayish-white orbital ring, while birds from Guatemala to northwestern Honduras can show yellow on fore crown and around eyes (variety "guatemalensis"). The bill is darker in immatures on the nominate species.
- A. o. hondurensis. First reported by Lousada & S. N. G. Howell in 1997. It is found in extreme eastern Guatemala (Punta Manabique) and northwestern Honduras (lower Sula Valley). Race hondurensis has yellow on head which is limited to the forecrown and sometimes the nape. It has a paler bill than the nominate species.

Common Name: Patagonian or Burrowing Conure

Scientific Name: Cyanoliseus patagonus

Size: 15.3-20.4 inches (39-52 cm)

Habitat: South America; endemic to Argentina and Chile. A very much reduced population still survives in Chile, and migration of some Argentine populations to Uruguay has been reported for the winter. Sometimes, strong westerly winds bring some individuals to the Falkland Islands.

Its natural habitat is the arid bush steppe community known as the Monte Desert. Found in arid lowland and montane grassy shrub land, open dry woodland savanna, open Chaco plains along watercourses, and thorny scrub or columnar cacti, often with a sandy substrate, at elevations up to 2000 m.



Status: Least Concern. **Global Population:** 95,000 individuals with a decreasing population trend. Some sources consider this parrot "Threatened" because habitat destruction affects its' breeding abilities. This species has declined due to increasing persecution as a crop pest. Even though they do not cause intense damage, lethal methods of control are used such as poisoning and shooting. Also, conversion of grassland to arable crop production and trapping for the live bird trade are big threats. Another increasing threat is growing through unsympathetic tourism, with four-wheeled vehicles being allowed on beaches; this can result in the death of chicks.

Diet: Seeds and fruits (Geoffroea decorticans, Prosopis, Schinus, Empetrum rubrum, Lycium salsum, Discaria and cacti)

Seeds taken from the ground, but also from standing vegetation such as the giant thistle (*Carduus mariana*); these mostly in winter.

Breeding: The head to upper back and mid-belly are dull olive, with bare white peri- and postocular patch, and a variable but incomplete dirty whitish pectoral band. The belly and thighs variably orange-red. The flanks, upper thighs, vent, lower back and rump are yellow. The wing-coverts greenish olive, primaries bluish, secondaries and tail olive. Immatures are like adults with horn-coloured patch on the mandible.

The burrowing parrot has a monogamous mating system with very strong bi-parental care. Genetic testing has recently shown that this species is one of a few animals that is genetically monogamous in a socially monogamous mating system. The species may only breed successfully in fairly large, dense colonies. They will only tunnel into vertical limestone or sandstone cliffs to make their nests, and have specific height requirements.

Cool Facts: Also known as the "Burrowing Parakeet", the Patagonian Conure nests and roosts underground. They are some of the largest conures, they tend to look more similar to macaws than to other Conure species, and they have an unusual brown coloring.

These birds are very social and love companionship; their natural behavior is to live in very large groups and to nest closely to one another. They do have mimicry abilities though have a harsh voice and can get loud.

The larger the red abdominal patch in males, the more attractive the bird is to females. In a study of around 40 pairs, the males with the largest and most intense red patches paired with the females with the same. This carries down so that pairs tend to have the same-sized patch. Nestlings from males with large, more intense patches also grow faster and weigh more.

Subspecies and Distribution

- *C. p. andinus.* First reported by Dabbene & Lillo in 1913. The "Andean Burrowing Parrot" is found in northwestern Argentina (from Salta to San Juan). Race *andinus* is duller than the nominate species with olive yellow replacing the yellow, pectoral band making it very indistinct.
- *C. p. conlara.* First reported by Nores & Yzurieta in 1983. Found in San Luis and Córdoba provinces, in west central Argentina. Race *conlara* darker on breast than the nominate.
- C. p. patagonus. First reported by Vieillot in 1818. The nominate species, "Common Burrowing Parrot" is found in central to southeastern Argentina (Mendoza and southern Buenos Aires to northeastern Santa Cruz), ranging occasionally into Uruguay in winter.
- C. p. bloxami. First reported by Olson in 1995. The "Chilean Burrowing Parrot" was found in central Chile and is now restricted to few localities mainly in O'Higgins and Maule, with the rest northwards to Atacama. Race bloxami is larger with a whitish pectoral band which is wider and more nearly complete than the nominate species. The back is darker green, but ventral red is variable and not diagnostic.

Common Name: Thick-billed Parrot

Scientific Name: Rhynchopsitta pachyrhyncha

Size: 15-16.9 inches (38-43 cm)

Habitat: North America. Once found in the high elevation pine forests of southern Arizona and southwestern New Mexico. Nomadic in response to pine crop success, thus behaving irruptively in the manner of crossbills (*Loxia*), and for the same reason. Major invasions of southernmost USA formerly occurred, and as with Loxia smaller numbers



may have stayed to breed or have always been present. This pattern may apply in many parts of the Sierra Madre Occidental itself, with perhaps only a few core areas permanently holding the species.

It is now only found in highland forests, pine forests and foothills of northern and central Mexico.

Status: Endangered. **Global Population: 2,000** - 2,800 mature individuals and decreasing. It is confined to high-elevation pine forests of the Sierra Madre Occidental in Mexico. Range extended historically as far north as central Arizona and southern New Mexico, with last records of naturally occurring birds in mid-19th century. Current population crudely estimated to be 2000-2800 mature individuals, although this may be an over-estimate. Main cause of decline is loss of high-elevation oldarowth forests through

logging. For any species dependent on food that is patchy in both space and time, the interposition of even more space between productive areas is an energetic catastrophe

leading to spatio-temporal bottlenecks in food supply; it also removes nest-sites. Forest destruction is continuing with the settlement of even remote areas by cattle-ranchers and drug-growers, and with logging operations still active. Some 18% of original habitat has been entirely lost. Shooting is likely to have been the cause of extirpation in the USA, while capture for the pet trade and hunting have contributed to historical population declines in Mexico, although they are no longer thought to threaten existing populations. "Reintroduction" efforts into the USA have been carried out using confiscated cage-birds, but although there was some breeding activity the birds have largely dispersed away from the release site and disappeared.

Diet: Principally seeds of various pines (*Pinus arizonica*, *Pinus ayacahuite*, and *Pinus teocote*). In Arizona, some fed on the seeds of the Chihuahua pine (*P. leiophylla*) before switching to acorns, and elsewhere *Prunus* fruits and legume seeds have been used as supplements. Occasionally they will feed on tree bark.

It is nomadic in response to the pine crop success. Major invasions of southernmost USA formerly occurred with banner years for pine growth. This pattern may apply in many parts of the Sierra Madre Occidental itself, with perhaps only a few core areas permanently holding the species.

Breeding: It is green throughout but with red forehead extending as broad line over and behind the eye. The bare orbital ring is dull yellow. It has red shoulders and lower thighs, and greater under wing-coverts are yellow. Immatures have less red.

Breeding is timed to coincide with peak pine-seed production, so breeding season is slightly variable between years. Nesting females will usually lay clutches of 3 eggs, with intervals of 2-3 days between eggs. The male spends the night in the nest hole with the female. Incubation takes approximately 26 days from the first egg, after which the chicks hatch at 2-3 day intervals, comparable with the laying timing. The chicks first open their eyes at 6 days, and their eyes are fully open at 16 days. Pinfeathers begin erupting at 16 days and the chicks are well feathered at 36 days and they have their full juvenile plumage by 56 days.

Cool Facts: Thick-billed Parrots and the extinct Carolina Parakeets are the only parrots whose natural ranges included the continental United States. The stronghold of the Thick-billed Parrots has always been the Sierra Madre Occidental of Mexico, but the species was also found in substantial numbers in southeastern Arizona and southwestern New Mexico in earlier times. Thick-billed Parrots suffered massively from shooting in the U.S. and were essentially gone from U.S. territory by 1920. Their garrulousness, relatively large size and tame inquisitive behavior, sadly made them easy targets for subsistence-hunting prospectors and other early settlers. Occasional sightings continued until 1938 in Arizona and until 1964 in New Mexico, but no parrots were recorded thereafter until a few captives were released to the wild in the late 1980's.

Thick-billed Parrots have a variety of vocalizations, which they use for alerting flock members to the approach of predators, flock integration, territorial interactions and soliciting food from mates and parents. Under the tutelage of their parents, the chicks begin vocalizations early and appear to have the full complement of vocalizations when they fledge. During flight, a flock will be garrulously calling, sounding like laughing children. Feeding flocks often post sentinels, who scan intently for predators. An alarm

call from a sentinel will put the entire flock into instantaneous flight and the birds are normally easily capable of out flying their avian enemies.

The primary predation threats faced by Thick-billed Parrots come from various raptors. Chief amongst such raptors are Red-tailed Hawks, Apache Goshawks and Peregrine Falcons. The parrots are powerful flyers and are rarely taken except when raptors are able to gain close approach undetected by the parrots. Surprised in midair by a Peregrine Falcon, they dive straight for the ground and evade the falcon with agile maneuvers as they dive into trees that the falcon is reluctant to enter. Nocturnal predation comes mainly from ring-tailed cats. Thick-bills appear to be free of severe threats from snake predation faced by Amazona parrots inhabiting lower altitudes.

Common Name: Yellow-faced Parrotlet **Scientific Name:** *Forpus xanthops*

Size: 5.9 inches (15 cm)

Habitat: South America. North-Central Peru.

Found in arid woodland, riparian thickets and desert scrub at 800-2,750 m, but mostly at 1,000-1,600 m.

Status: Vulnerable. **Global Population:** 250-999 mature individuals. The species suffered a serious decline in the 1980s due to the Pet Trade. In 1988, only 168 individuals were counted during extensive surveys. It appears to be recovering somewhat following a ban on trade; however, there is little evidence of a substantial recovery.

Diet: Feeds on the seeds of balsas trees and cacti. It will feed on ripen wheat.

It has been observed on the ground where was feeding on grass seed and other fallen seed. They are very gregarious as most parrots are. They forage in cactus-dominated savannahs, in open landscapes with light forests with deciduous trees. They feed early in the morning or late at night.

Breeding: It has a yellow crown and face with a bluish postocular stripe merging into bluish grey of hindcrown and nape, this in turn, merges into olive gray on sides of neck, back and wings. The lower back, rump, upper tail-coverts and large patch on wing are dark blue and paler on secondary coverts, The under parts are greenish yellow with the under wing-coverts being dark blue. The tail is green. Females have theirs backs and rumps a more pale blue and less blue in wings. Immatures are undescribed.

Breeding season begins in March-April, and nesting takes place in natural dirt and rock walls, in colonies of up to 70 birds.

Cool Facts: Its call is a passerine-like "zit" or bisyllabic "zidit". This call is given both in flight and when perched. Groups in flight call continuously, producing a relatively loud tinkling twittering. When perched, calls are more subdued.



Common Name: Crimson Rosella **Scientific Name:** *Platycercus elegans*

Size: 12 ½ to 14 ½ inches (32-37cm)

Habitat: Australia; There are several populations of the Crimson Rosella. Red (crimson) birds occur in northern Queensland, in southern Queensland to south-eastern South Australia and on Kangaroo Island. Orange birds are restricted to the Flinders Ranges

region of South Australia, while yellow ones are found along the Murray, Murrumbidgee and neighboring rivers (where yellow birds meet red birds they hybridize, producing orange offspring). Red birds have been introduced to Norfolk Island and New Zealand.

Throughout its range, the Crimson Rosella is commonly associated with tall eucalypt and wetter forests.

Status: Least Concern. Global Population: 300,000 individuals with a decreasing population trend. Generally common to abundant, with the overall population of elegans, nigresecens and melanoptera thought to be in excess of 200,000 birds, but has lost ground to land clearance, when it is replaced by P. eximius. Slight expansions of range detected in Bendigo area, Victoria, during 1970s and in South-East and Adelaide Plains regions of South Australia, while numbers around Naracoorte, South Australia. were thought to be increasing in 1960s, whereas numbers at Comooyne, New South Wales, declined in 1930s after large numbers were shot. Damages orchard crops and possibly young wheat, meaning that



species was shot in large numbers in past; in some areas, many (especially young) trapped for aviculture and species is possibly eaten by foxes, cats or dogs. Common and

widespread on Norfolk Island, where introduced in 1830s, but an attempt to stock Lord Howe I (in 1918) with the species failed, whereas another introduction, to New Zealand, was also successful, where it occurs in parts of the city of Wellington (since 1963) and perhaps also in Dunedin. Race *flaveolus* is fairly common (numbers placed at > 50,000 individuals) within its restricted range, but has suffered some losses owing to large-scale irrigation schemes. Race *adelaidae* is also abundant within its small range, being common in parks and gardens in the city of Adelaide, whereas *subadelaidae* is generally considered to be local and uncommon.

Diet: Eucalyptus seeds, grasses and shrubs, insects and some tree blossoms.

Breeding: There are several color forms of the Crimson Rosella. The form it is named for has mostly crimson (red) plumage and bright blue cheeks. The feathers of the back and wing coverts are black broadly edged with red. The flight feathers of the wings have broad blue edges and the tail is blue above and pale blue below and on the outer feathers. Birds from northern Queensland are generally smaller and darker than southern birds. Young Crimson Rosellas have the characteristic blue cheeks, but the remainder of the body plumage is green-olive to yellowish olive (occasionally red in some areas). The young bird gradually attains the adult plumage over a period of 15 months

Nests are in tree hollows, located high in a tree, and lined with wood shavings and dust. The female alone incubates the white eggs, but both sexes care for the young. The chicks remain dependent on their parents for a further 35 days after leaving the nest.

Cool Facts: Seven subspecies recognized.

Subspecies and Distribution

- *P. e. nigrescens.* First reported by E. P. Ramsay in 1888. It is found in northeastern Queensland. Race *nigrescens* is darker and smaller than the nominate species (wing 147–168 mm vs 164–188 mm in nominate).
- P. e. filewoodi. First reported by McAllan & Bruce in 1989. It is found in east-central Queensland. Race filewoodi has similar plumage to nigrescens, but has size of nominate species.
- *P. e. elegans*. First reported by J. F. Gmelin in 1788. the nominate race is found in southeastern Queensland to southeastern South Australia.
- P. e. flaveolus. First reported by Gould in 1837. The "Yellow Rosella" is found in the interior southeastern Australia centered on Murray–Murrumbidgee river systems. Race flaveolus is similar to the nominate but has pale yellow replacing red, except orange-red frontal band and lores, with some orange-red on the breast, while females are usually has more orange-red on the breast markings and often a pale under-wing stripe. Immatures have a reduced frontal band, upper parts dull olive-green, under parts tinged greenish-yellow and an under wing stripe.
- P. e. subadelaidae. First reported by Mathews in 1912. The "Adelaide Rosella" is found in South Australia in the southern Flinders Ranges and the northern Mount Lofty Range. Race sub-adelaidae has orange-yellow underparts but head, flanks and rump far yellower.

- P. e. fleurieuensis. First reported by Ashby in 1917 It is found on the southern Mount Lofty Range (South Australia). Race fleurieuensis is slightly smaller than nominate elegans, but has more yellowish head and neck, redder fringes to upper parts, more orange-colored under parts and paler wings.
- *P. e. melanopterus*. First reported by North in1906. It is found on Kangaroo Island (South Australia). Race *melanopterus* is darker red, with narrower red fringes to mantle feathers, thus it appears to have more black on the back.

Common Name: Galah

Scientific Name: Cacatua roseicapilla

Size: 12 1/4 to 15 inches (31-38cm)

Habitat: Australia; one of the most abundant and familiar of the Australian parrots, occurring over most of Australia, including some offshore islands.

Found in large flocks in a variety of timbered habitats, usually near water.

Status: Least Concern. **Global Population**: unknown amount of adults with an increasing population trend. The Galah is becoming more abundant around areas of human habitation, with the growth in population largely a result of increasing availability of food and water. Escaped aviary birds have also contributed to these numbers.

Diet: Form huge, noisy flocks, which feed on seeds, mostly from the ground. Seeds of grasses and cultivated crops are eaten, making these birds agricultural pests in some areas. Birds may travel large distances in search of favorable feeding grounds.

Breeding: A very distinctive medium-small cockatoo. The plumage quite unlike that found in any member of closely related Cacatua, although both C. leadbeateri and C. moluccensis have varying degrees of pink suffusion. It is medium-grey with a deep pink face, neck, nape and underparts, and a pinkish white cap. The periophthalmic ring carunculated and larger in males. Males have a light brown colored iris; females are pink. Juveniles and immatures both have brown eye.



Galahs form permanent pair bonds, although a bird will take a new partner if the other one dies. The nest is a tree hollow or similar location, lined with leaves. Both sexes incubate the eggs and care for the young. There is high chick mortality in Galahs, with up to 50 % of chicks dying in the first six months.

Cool Facts: The Galah is becoming more abundant around areas of human habitation, with the growth in population largely a result of increasing availability of food and water. Escaped aviary birds have also contributed to these numbers.

Galahs have been recorded breeding with other members of the cockatoo family, both in the wild and captivity. These include the Sulfur-crested Cockatoo.

Subspecies and Distribution:

- E. r. kuhli. First reported by Mathews in 1912. It is found in northern portion of Western Australia (Kimberley) eastward to North Queensland. Race kuhli is smaller than the other two races. The periophthalmic ring is pink.
- E. r. roseicapilla. First reported by Vieillot in 1817. The nominate race is found in western and west-central Australia eastward to the southern portion of Northern Territory. The periophthalmic ring is greyish white.
- E. r. albiceps. First reported by Schodde in 1989. It is found in east-central and eastern Australia westward to the Simpson Desert and southward to Tasmania. Race albiceps has crown and nape white with pink tinge only at base of feathers. The periophthalmic ring is pink.

Common Name: Night Parrot

Scientific Name: Pezoporus occidentalis

Size: 8 ½ to 10 ¼ inches (22-26 cm)

Habitat: Australia; Interior of W & C Australia, where likely widespread in 19th century.

Arid areas where there is dense, low vegetation, which provides shelter during the day.

Status: Endangered. Global Population: 50-249. This species was extinct for decades, but carcasses found in northwestern Queensland (near Boulia in 1990 and Diamantina in 2006), three individuals reported in Pilbara region (Western Australia) in 2005, other possible sightings made in several regions, and photographs of a live bird obtained in 2013. Possibly a very scarce and cryptic species that could occur, inland, anywhere from Western Australia to western Queensland and northwestern New South Wales.



Habitat degradation caused by altered fire regimes and livestock grazing, compounded by predation by introduced cats and foxes and possibly by reduction of water availability due to camels, may all have contributed to the decline of this species, although clearly its nocturnal habits and inhospitable habitat greatly obscure an understanding of both past and present status.

Formerly considered extinct. Seven sightings, 1992–1993, and a road-killed individual found near Boulia, Westwern Queensland, in 1990, indicated that small numbers were surviving. A second corpse, of a young female, was found at Diamantina National Park, Queensland, in 2006; three birds were reported from the Pilbara region of Western Australia in Apr 2005, with three further sightings in 2010. First photographs of a live bird, taken in Jul 2013 in Queensland, were published later that year. The location of this site remains confidential, but is now protected by a 56,000 ha private reserve. In 2015, an individual was captured and afterwards radio-tracked for a few days. Given recent records, it is estimated that there might be 50–250 birds in total. It may still occur elsewhere in its former range, but population assumed to be very small and possibly subject to extreme numerical fluctuation. Considered Critically Endangered until 2012, recent sightings appear to indicate a larger population than previously suspected and it has therefore been downlisted to Endangered. Recent records suggest that sensitive land management, with patch burning of spinifex, moderate livestock densities and low levels of exotic predators, may contribute the conditions under which birds survive.

Diet: Porcupine grass (*Triodia*), saltbush, bluebush, Mitchell grass (*Astrebla*) seeds.

The species was secretive and almost all confirmed sightings of feeding or drinking birds have come after dark. In the 1800s, Aboriginal people familiar with the bird referred to its nocturnal behavior, and early observers reported birds flying to water once night has fallen. A number of reports have been of birds flushed by traveling stock at night. A captive bird in a London zoo was active throughout the night. Sightings during the day almost always have been of birds flushed from hiding places by herds of stock, dogs or fire. A bird would sit tight, flushing only if the disturbance was very close, actually affecting the clump of vegetation in which it was hiding. Early observers stressed the dependence of the parrot upon dense spinifex or samphire for daytime roosting spots and for nesting. Although the Night Parrot is capable of flight, it prefers to spend most of its time on the ground. Some reports indicated that it runs between shelters when possible, in preference to flying. When it flies, it usually goes only a short distance, flying close low, before landing and escaping on foot.

Breeding: It is mottled dull green and black above and below, with green ear-coverts and a plain yellow belly and under tail-coverts. The flight-feathers and tail are blackish brown with the outer tail feathers with yellowish notches. Immatures are reportedly dull and plain.

The nest is a layer of small sticks in an expanded cavity at the end of a tunnel under a clump of *Triodia* or a samphire bush. A four to six egg clutch has been reported.

Cool Facts: This is one of four ground-dwelling parrots in the world. This species closely resembles the Ground Parrot (*Pezoporus wallicus*) of coastal southeastern and southwestern Australia and Tasmania. It differs by lacking the orange band on the forehead across the base of the upper mandible, a noticeably shorter tail, and shorter, straighter claws on the toes.

The first known specimen of the Night Parrot was collected by John McDouall Stuart in October 1845, north of Coopers Creek, far northern South Australia, as part of an expedition led by Charles Sturt. The Night Parrot was not formally named until 1861,

when John Gould described it as *Geopsittacus occidentalis*, based on a bird collected in 1854 near Mount Farmer in Western Australia.

Until the 1870s, sightings appeared to be very occasional. The period between 1870 and 1890 was the most productive known, with numerous sightings and another 20 specimens being collected. Of the 22 museum specimens collected last century, F. W. Andrews, working for the South Australian Museum, collected 16, all during this period. Following this period of abundance, there was a marked decline in confirmed sightings.

Of the few sightings of Night Parrots between 1890 and the 1930s, the only identifiable specimen was one accidentally shot in Western Australia in 1912.

There were a number of reported sightings in the 1960s and early 1970s, but none could be confirmed. In 1979, a team from the South Australian Museum saw a several birds in the far northwest of South Australia.

In 1990, the last identifiable Night Parrot was found—road kill in southwestern Queensland. Since then, sightings have been claimed, but none substantiated. Publicity campaigns in several states have gathered awareness, but despite organized searches, no birds could be found.

The first photographic and video evidence of a live individual was publicly confirmed in July 2013. After seventeen thousand hours in the field over 15 years of searching, wildlife photographer John Young captured several photos and a 17-second video of the bird in western Queensland. John Young was later found to have used fake feathers and eggs along with archived recordings of the bird for much of his work in QLD and SA. His findings have been branded "fake news" by his peers.

In August 2015, the tagging and tracking of a live individual was announced on Australian media by Ornithologist Steve Murphy. Other live individuals were photographed in Queensland in late 2016, and sightings recorded in Western Australia and South Australia in 2017. A young bird, likely hatched in late 2017, was recorded in February 2018.

Common Name: Red-tailed Black Cockatoo Scientific Name: Calyptorhynchus banksii

Size: 19 ³/₄ to 26 ³/₄ inches (50-68cm)

Habitat: Australia; In Victoria, the South-eastern Red-tailed Black-Cockatoo occurs from Portland in south-east to just north of the Little Desert, while in South Australia it is found



from Bangham-Frances to Mt Gambier. Its former distribution may never have been much greater than this, but the extent of occurrence within this range has declined significantly due to habitat loss (c. 60% of habitat in Victoria and 80% in Southern Australia has been destroyed).

Status: Endangered. Global population: 250-999. Populations of the south-east region of Australia are threatened by clearing of native habitat. Much of the feeding habitat used by these birds is protected in State Forests. However, nesting habitat on private land is disappearing rapidly as a consequence of tree dieback, felling of potential nest trees for firewood, and the general intensification of farming (i.e. change from grazing to farm forestry, cropping etc).

In Australia they are a protected species and a permit is required to keep them. There is an export ban on live, dead or parts of the bird, including feathers. According to the Action Plan for Australian Birds 2000, the south-

eastern subspecies of the Red-tailed Black-Cockatoo is endangered.

Diet: Feed on the seeds of Brown Stringybarks (*Eucalyptus baxteri /E.arenacea*) and Bulokes (*Allocasuarina leuhmannii*).

Breeding: Males are uniformly black with broad red subterminal band across tail except on central two feathers. It has an erectile, backward-sloping crest. Its bill and feet dark grey.

Females are smaller and brownish black with numerous yellow spots on head and shoulders. The breast is barred yellow with the under tail-coverts barred orange-red. The subterminal tail-band is yellow-orange barred black with central two feathers all black. The bill is bone-colored and the feet are dark gray. Immatures are similar to adult females; males do not attain adult plumage until their fourth year. Nominate race largest; naso has a proportionally large bill, while graptogyne lacks notch in upper mandible;

For nesting, the Cockatoo's require old River Red Gums or Yellow Gums with large hollows. Most nest trees are within 2km of suitable feeding habitat. A clutch consists of 1-2 eggs, though if a second egg is laid the chick is neglected and quickly perishes.

Cool Facts: They are one of the rarest and most expensive cage birds, usually costing over \$20,000 USD.

"Karak", the Red-tailed Black Cockatoo was the official mascot of the 2006 Commonwealth Games, held in Melbourne, Australia.

Subspecies and Distribution

- C. b. macrorhynchus. First reported by Gould in 1843. It is found in Northwestern Australia (Kimberley) and Northern Territory to the eastern edge of the Gulf of Carpentaria. The large-billed race macrorhynchus rather similar to, and often confused with the Glossy black cockatoo (C. lathami).
- *C. b. banksii.* First reported by Latham in 1790. The nominate race is found in eastern Australia (north & eastern Queensland to northeast New South Wales). The nominate race is the largest of the races.
- C. b. samueli. First reported by Mathews in 1917. It is found in inland Australia from central-west & southwest Western Australia to southwestern Queensland and New South Wales.
- *C. b. naso.* First reported by Gould in 1837. Found in the forests of southwestern Australia. *Race naso* has a proportionally large bill.
- C. b. graptogyne. First reported by Schodde et al. In 1989. Found in the forests of southeastern South Australia and southwestern Victoria. Race graptogyne lacks notch in upper mandible.

Common Name: Golden-mantled Racquet-tail Parrot

Scientific Name: Prioniturus platurus

Size: 11 inches (28 cm)

Habitat: Indonesia. Celebes, Togian, Lembeh Islands, Siao Island, Peleng Island, Banggai Island, Muna and Buton Island, Indonesia.

Found in forested areas, montane forest and occasionally open areas with forest remnants at 2,000 m (6,600 ft); visits cultivated areas and mango trees near villages.

Status: Least Concern. **Global Population:** unknown. Population decreasing due to deforestation; only common in localities.



Diet: Fruits (especially mango), seeds and flowers.

It is claimed that it forages in maize-fields at night causing damage to crops.

Breeding: The is green on the head with a red spot on hindcrown bordered behind by larger lilac patch. There is a dull orange to yellow lateral stripe across mantle. The rest of the mantle, back and wing-coverts are dull gray with the central tail feathers green above, with blackish spatules. The lateral feathers are green with blue edging and black tips and yellowish green on undersides. Females are green. Immatures are like the female with no spatules.

Breeding season probably from October. The nests in holes in dead branches or trees.

Cool Facts: Mostly seen flying high in groups of 5 to 10 birds. Very noisy and conspicuous in flight. It has a penetrating "*keli-keli*" call or sharp "*kak kak*".

It is well camouflaged by plumage in foliage and difficult to detect. Often heard rather than seen. If disturbed there they remain motionless and silent and if danger persists they will then suddenly fly up and away screeching loudly. Groups often fly great distances to find fruit trees.

Its flight appears deliberate, swift and powerful.

Subspecies and Distribution:

- *P. p. talautensis.* First reported by E. J. O. Hartert in 1898. the race is found on Talaud Island (Karakelong, Salebabu). Race *talautensis* darker with less gray on the upper parts than the nominate race.
- *P. p. platurus.* First reported by Vieillot in 1818. The nominate race is found on Sulawesi and associated islands (Siau, Lembeh, Dodepo, Togian Island, Banggai Island, Muna, Butung).
- *P. p. sinerubris.* First reported by Forshaw in 1971. It is found on Sula Island (Taliabu, Mangole). *Race sinerubris* has less gray and is smaller than the nominate race. It also is without red spot on crown.

Common Name: Long-tailed Parakeet **Scientific Name:** *Psittacula longicauda*



Size: 16 ½ inches (42 cm)

Habitat: Asia; Malaysia South of Kedah, Singapore, Borneo, Sumatra, Indonesian island of Nias as well as Bangka and Anambas Islands.

Found in coastal and lowland forested areas.

Status: Vulnerable. Global Population: unknown. Rates of forest loss in the Sundaic lowlands have been extremely rapid because of a variety of factors, including the escalation of logging and land conversion, with deliberate targeting of all remaining stands of valuable timber including those inside protected areas, plus forest fires

Diet: Fruits (*Pandanus, Carica papaya, Dryobalan-ops sp.*), seeds, flowers (*Acacia*) and leaf buds; causes considerable damage to oil palm plantations in some areas.

Usually found in groups of up to 20 birds and in some localities gatherings of 800 or more birds. They are apparently nomadic, probably also seasonal migrations. Restless and constantly on move, they climb quickly around in branches briefly before flying to next tree. Often seen because of continuous screeching, they feed soon after sunrise and are found during the day in tall trees. In late afternoon, they resume foraging before returning to their roosting trees. Their flight is swift and direct; often flying in groups just above treetops.

Breeding: The upper mandible is red and the lower is blackish red. The crown and area above line from cere to eye is dark green. The area from the mandible and chin tapering onto lower sides of the

neck are black. The rest of the head and nape are rose-pink, shading to pale yellowish green on the mantle and upper back, pale bluish on the lower back on the male. There is green on upper tail-coverts and the under sides are greenish yellow shading slightly darker on belly. The wings are green with dull blue on primary-coverts and primaries. The tail deep blue centrally, outer feathers green. Female replaces rose-pink on head with dull orange-red, and blue wash on ear-coverts. The bill is all brownish. Immatures are mainly green with some orange-red tinge on sides of head.

Breeding season is from February to July; mostly nesting in hollow branches or holes in dead trees and very occasionally in living trees, in one case 10m from ground. During courtship display cocks bow before the hen, making regurgitating and circular movements with head and touching bill of hen, He then feeds the hen before mating. The nest is lined with pieces of bark and chewed wood and holds clutches of 2 to 3 eggs.

Cool Facts: Races *tytleri* and *nicobarica* differ morphologically and vocally both from each other and from all other races, and may represent two distinct species; this view supported by recent study, which suggested that current internal taxonomy renders this species polyphyletic. Five subspecies currently recognized.

Subspecies and Distribution

- P. I. tytleri. First reported by A. O. Hume in 1874. The "Andaman Long-tailed Parakeet" is found on Andaman Island and nearby Coco Island. Race tytleri's crown, nape, mantle and upper back are yellowish green. The rump and lower back are green.
- *P. I. nicobarica.* First reported by Gould in 1857. The "Nicobar Long-tailed Parakeet" is found on Nicobar Island. *Race nicobarica* has a bright green crown with yellowish green nape. This race is the largest,
- P. I. longicauda. First reported by Boddaert in 1783. The nominate race, the "Common Long-tailed Parakeet" is found in Peninsular Malaysia and Singapore through Sumatra, Nias and Bangka to Borneo.
- P. I. defontainei. First reported by Chasen in 1935. This race is found on Natuna Island and Karimata (off of western Borneo), Riau Archipelago, Belitung and possibly on Anambas Island. Race defontainei has deeper red on the head with a yellowish crown.
- P. I. modesta. First reported by Fraser in 1845. The "Enggano Long-tailed Parakeet" is found on Enggano Island (off of southwestern Sumatra). Race modesta's crown appears brownish, as feathers are dull red mixed with green, duller brownish in females

Common Name: Plum-headed Parakeet Scientific Name: Psittacula cyanocephala

Size: 13 inches (33-37 cm)

Habitat: Asia. India (widespread), Sri Lanka, Nepal, and Bhutan. In Sri Lanka.

It is common along the foothills in open woodland. In India, is common near cultivated land and in parks and towns. Not as common in Nepal

Status: Least Concern. Global Population: unknown number of adults with a decreasing population trend. Fairly common in Nepal, but with an apparently decline in Kathmandu Valley. In India generally common. Formerly abundant in lowlands of Sri Lanka, but habitat loss has forced range inwards, and now only common at mid-altitudes.

Diet: More frugivorous than most Psittacula parakeets, and prefer small to large seeds. Fruit of Ficus and Ziziphus, buds, fleshy petals and nectar of plants such as Adhatoda vasica, Punica granatum, Salmalia, Butea and Bassia, seeds of thistles Echinops and Cnicus; feeding in Casuarina also noted. Sometimes visits cultivations inside forest in flocks of several hundred, doing much damage to crops including rice, sorghum, maize, vegetables and orchard fruit.

Breeding: The bill is yellowish above and darker below. The head is crimson shading to greyish plum on mid-crown to the nape and earcoverts. The black chin extends as complete narrow collar which is shaded blue-green below on back and sides of the neck. The under

parts are yellowish green. The mantle and back are green, shading darker on wing-

coverts, with maroon patch on lesser wing-coverts, and darker again on flight-feathers. The rump is light blue-green and the tail is purplish-blue tipped whitish centrally and green tipped yellow laterally. Females has purplish grey head with no black, instead there is an indistinct complete narrow yellowish neck-ring. There is no maroon wing-patch and the upper mandible is creamy. Immatures have a green heads and orange on their forecrowns.

In India, the breeding season is December through April; Sri Lanka, February to May and again August to September. For nesting, they excavate a hole in a tree or enlarge the holes of other birds. Birds will nest together in the same tree or trees close by. Four to six eggs are laid and incubated by the female for 24 days. Chicks leave the nest 6 weeks after hatching. After the first molt, juveniles have plumage similar to the female. Males have full adult plumage in their third year.

Cool Facts: Parakeets are very noisy in flight but quiet when perched. They are swift in flight. Although, they have been seen in large flocks feeding on grain crops, more commonly they are found in small groups. When they return to roost with the flock in trees or bamboo at dusk, they are very noisy until nightfall.

Common Name: Red and Blue Lory

Scientific Name: Eos histrio

Size: 12 ½ inches (31cm)

Habitat: Asia; Indonesia. Talaud Islands (almost exclusively on Karakelang) off northern Sulawesi. Further populations (some apparently the result of introductions) disappeared during the 20th century from Sangihe, Siau and Tagulandang. Found in forested areas.

Status: Endangered. Global Population: 8,200 - 21,400 mature individuals with a decling population trend. This species has a very small range (being known from few locations). Habitat loss in the past and "Pet Trade" pressures in the present are key threats. It was widely trapped as early as the 19th century. In 1999, research suggested that as many as 1,000-2,000 birds were leaving Karakelang each year, 80% (illegally) to the Philippines. This is compounded by extensive loss of forest, perhaps the main factor underlying its disappearance from Sangihe. The use of insecticides and the transmission of disease via escaped cage-birds to wild populations have been identified as further potential hazards.

Diet: Fruit and insects, but also visits agricultural areas to feed on coconut nectar and various cultivated fruits

Breeding: It is red, with orange bill and purplish blue patch on mid- to hindcrown and broad line from around eye down side of the neck to mantle. The breastband, mantle and back are purplish blue. The scapulars, flight-feathers and thighs are dark red. The wing-coverts are tipped black. The tail is reddish purple above and the legs are gray. Immatures have more blue



on the crown (extending to mantle), more black on the wings and a grayer tail. The breastband is less defined (mottled grey) and it has blue scalloping on underparts.

The breeding period appears to be May-June (although nesting has been suspected in several other months). They nest in cavities of tall trees.

Cool Facts: A strikingly patterned, arboreal parrot with a call of short harsh chattering screeches. Flocks regularly make short seasonal movements, and in some cases roost on offshore islands.

Subspecies and Distribution:

- E. h. talautensis. First reported by A. B. Meyer & Wiglesworth in 1894. It is found on Talaud Island (now almost exclusively on Karakelong; at least formerly on Salebabu and Kabaruang). Race talautensis has less black (and more red) on the wingcoverts and flight-feathers, and is slightly smaller than nominate.
- *E. h. histrio.* First reported by Statius Müller in 1776. the nominate species was found on Sangihe Island, but probably now extinct.

Special Thanks to my Beta-Testing Team...

2007 version: Bea, Jan, Kelvin, Nancy, Rhonda and Sandra 2020 version: FlintHawk and Szark

Species Accuracy and Reference Materials

The author has tried to make these species as accurate to their real life counterparts as possible. With the use of one generic model to create dozens of unique bird species, some give and take is bound to occur. The texture maps were created in Painter with as much accuracy as possible.

Reference Materials:

- "Parrots: A Guide to Parrots of the World" by Tony Juniper and Mike Parr
- Handbook of the Birds of the World Alive https://www.hbw.com/
- Wikipedia https://en.wikipedia.org/wiki/Main Page
- BirdLife https://www.birdlife.org/

Why are so many Parrots at risk?

As you look through the Field Guide portion of this manual, you notice that three quarters of the parrots represented here are endangered, threatened or at risk. Why? In simple terms, there are three causes.

- The black-market pet trade. While most countries prohibit the capture and transfer of "pet" birds, the easy money to be made through the black-market, particularly in third world countries, is exceptionally tempting to some. Smuggling continues in cruel and gruesome ways such as stuffing live birds into PVC tubes and hoping enough live through the smuggling to make a profit. If you purchase a bird, make sure it came from a breeder.
- Habitat destruction weighs heavily on many species. Whether it is timber harvesting, mining, farming or urban sprawl, these human activities destroy foraging and nesting areas. Most birds (unlike humans) will not produce offspring if there aren't sufficient resources to care for their young, so populations dwindle.
- Parrots are gregarious and curious. They like to travel in crowds. This
 makes them easy targets for poachers and irate farmers.

Risk assessments found in the Field Guide are rated by **Birdlife International** (birdlife.org)

