

## *Ara ararauna* (Blue-and-yellow Macaw)

Family: Psittacidae (Parrots and Macaws)

Order: Psittaciformes (Parrots, Macaws and Cockatoos)

Class: Aves (Birds)



**Fig. 1.** Blue-and-yellow macaw, *Ara ararauna*.

[“[http://en.wikipedia.org/wiki/Blue-and-yellow\\_Macaw](http://en.wikipedia.org/wiki/Blue-and-yellow_Macaw)”, downloaded 8 October 2011]

**TRAITS.** Blue-and-yellow macaws, are the most beautiful among the macaw family. They are one of the large macaws, and can reach a length of 76-86cm (30-34 inches) long and a weight of approximately 900 to 1300 grams (2-3 lbs.)” (Wikipedia, 2011). Known for their amazing colour, the *Ara ararauna* has a green forehead. Their upper body has a radiant glow of blue as do the wing and tail. From the side of their neck to the front of their lower body is intensely coloured yellow or what others may refer to as gold (Fig. 1). Just below their lower beak there is

a black bib of feathers. The beak which is used to crush nuts and shells is coloured black. These birds contain white faces lined with small black feathers (Low, 1983). The white portion usually turns pink in excited birds. The white facial patch will age and wrinkle as the bird gets older or matures. The eye colour of the adult birds is yellow. Coloration of the juveniles are as in the adults but with grey/brown eyes. These birds have a lifespan of up to 50 years (Low, 1983).

**ECOLOGY.** These birds are non-migratory and live in the top of the rainforest trees. *Ara ararauna* have become endangered in the wild due to deforestation. The best areas in which to locate these birds would be the rainforest in areas such as swampy and riparian areas. In order to avoid predators these birds nest high above the ground in trees (Juniper, 1998). They are also established in subtropical and tropical forests, woodlands and savannahs. In the wild these birds live near the water, and can also be found at the edge of lowland humid forest. These birds feed quietly at the top of the forest canopy. The *Ara araraunas* typically congregate in large numbers at riverbanks with other parrot species. At the riverbanks these birds eat the clay soils which act as a natural antacid to aid in digestion of unripe fruits which was consumed that contained toxins. This clay eating behaviour is only seen in macaws in the Western Amazon (Fig. 3). These macaws are seen in pairs often, and can be found in a noisy flock of up to 25 birds during non-breeding seasons. They are omnivorous birds, but mainly eat fruits, nuts and seeds. Macaws also feed on small insects and snails as an added source of protein. Macaws use their curved beaks which are powerful for crushing the hard shells of nuts and seeds.

Blue-and-yellow macaws are rated of least concern by the IUCN because of their large geographic range. Even though the population tendency is deteriorating it is not sufficient to put the blue and yellow macaw on the endangered species list, so as for now it has not reached the vulnerable status. The population size for the adult macaws are considered to be exceeding 10,000 with a drop not more than 10% exceeding the previous 10 years which is apparent. Although they have become extinct in Trinidad and Tobago, efforts have been made to reintroduce these birds to Trinidad. Wild macaws were caught from Guyana between 1999 and 2004 and taken to Trinidad. Pre-release flight cages were used to keep these birds when they were brought to Trinidad. Out of the fourteen birds which were released, 9 survived and within three mating seasons 12 chicks were produced. In South America, population of blue and yellow macaws are also being affected due to habitat degradation from pollution, development and logging (Plair, 2008).

**SOCIAL ORGANIZATION.** These birds are seen in pairs in the wild and flock in large numbers when breeding season is over to and from feeding grounds. In flock situations only do these birds tend to be vocal. Macaws use vocal mimicry for attention in captivity, physical contact is another way in which they interact with their owners. These birds make excellent pets; they are also playful and have a nice temperament (Oregonzoo, 2011). At times these birds may become cranky and prefer its owner. They are well rounded once they are well socialized with more than one person. In the wild these birds can choose their partner before they even reach the age of maturity. The wings of these paired birds are close together when in flight as if they are almost touching. During the day flights by these birds are noticeable and are commenced from their nesting area to the feeding ground and go back to the nest by flying over the canopy of the forest before the sun set.

**FORAGING BEHAVIOUR.** Almost all day can be spent out of the roosting nest during the non-breeding season to feed but return to the nesting site before sunset as they fly over the forest canopy. *Ara ararauna* uses its beak to aid in eating. The beak is used to crush open seeds and nuts (Fig. 3) as well as a “third foot” when climbing. Tremendous pressure is exerted on seeds and nuts with their beak. In order to crack open very hard nuts, macaws use the lower part of the beak to file down the thickness of the shell. They then move the food around in the shell using their thick fleshy tongue. In the wild whilst foraging, birds that are in pairs join small noise groups in the early morning and look for shade by midday. In the evening about 10 minutes before the sun sets these birds make large amounts of noise to alert their flock to settle for the evening. When foraging in the wild, these birds eat fruits, nuts, seeds, vegetable matter, bark and leaves as well as feed on insects, snails and small animals. In captivity, these birds are usually fed fruits, vegetables as well as seed or pellet mixes for macaws. Since these birds eat protein in the wild they can eat protein such as chicken in captivity. Avocado and chocolates should not be given to macaws since they are toxic to any parrot (Catania, 2011).

**COMMUNICATION.** *Ara ararauna* communicates through visual, tactile and acoustic. These birds are very expressive. They show emotions by vocalizing, flashing their eyes (voluntary constricting their pupils), blushing and cocking their head. Other forms of communication which these birds use includes: fluffing of the feathers, bowing, shaking of tail feathers, head bobbing and raising of the wings. *Ara ararauna* also use flock calls which are loud vocalizations to communicate. Visual perception in these birds is highly developed as well as intricate communal behaviour and dialogues (Low, 1983).

**SEXUAL BEHAVIOUR.** *Ara ararauna* form one-to-one pairs that remain together for life, they stay with each other until one bird dies (Juniper, 1998). Unlike other birds, macaws have a low reproductive rate. The reproduction cycle can also be low because of a lack of suitable nesting sites and areas. At the age of 3-4 years these birds can reach sexual maturity. These birds breed every 1-2 years between the months of December to May. Cavities in tall trees which were already made by other animals are usually where macaw's nest is found. When these birds nest they usually lay a clutch size of 2 to 4 eggs which are elliptical (46-36mm). The female would incubate the eggs for 24 to 28 days, while the male would bring food for the female. When the eggs hatch both parents take the duty of feeding the young but during the first week after the eggs are hatched only the female would feed the young by the process of regurgitation: bringing up food. After this the male also feeds the young. At the end of the breeding season these birds begin to molt. Molting takes place over several months. In order to protect their young both parents are extremely aggressive towards intruders.

**JUVENILE BEHAVIOUR.** When the young hatch, blind and featherless (Fig. 4), their weight is about 14 – 20g (0.5 – 0.7oz), with a peak weight of 927 – 1064g (32.4 – 37.2oz) and weaning weight of 1000g (35oz). After about 7 - 14 days the eyes open and after hatching it takes about 10 days before the young start to grow feathers (Juniper, 1998). It takes 90 – 100 days after hatching for fledglings become independent. Once leave the nest they do not return. Hand reared macaws are playful. Once tamed from young they can perform tricks and mimic words.

**ANTIPREDATOR BEHAVIOUR.** *Ara ararauna* are particularly suspicious birds. During times of or when signs of danger do arise these birds screech loudly while flying up in the air

(Juniper, 1998). These birds are not helpless in any situation. Their legs are strong as well as their beak which is even more powerful than their legs.

#### REFERENCES

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**Fig. 2.** Blue-and-yellow macaws (*Ara ararauna*), yellow-crowned parrots (*Amazona ochrocephala*), and scarlet macaws feeding on clay.

[[http://travel.mongabay.com/pix/peru/tambopata-Tambopata\\_1027\\_4126a.html](http://travel.mongabay.com/pix/peru/tambopata-Tambopata_1027_4126a.html), downloaded 10 October 2011]



**Fig. 3.** *Ara ararauna* eating a walnut nut.

[[http://en.wikipedia.org/wiki/File:Ara\\_ararauna\\_eating\\_-\\_Wilhelma\\_Zoo-8-2rc.jpg](http://en.wikipedia.org/wiki/File:Ara_ararauna_eating_-_Wilhelma_Zoo-8-2rc.jpg), downloaded 12 October 2011]



**Fig. 5.** Baby blue-and-yellow macaws, showing that when born they are blind and featherless.

[<http://www.pekinez.info/en/ARA%20ARARAUNA.htm>, downloaded 10 October 2011]