

Melanerpes rubricapillus (Red-crowned Woodpecker)

Family: Picidae (Woodpeckers)

Order: Piciformes (Woodpeckers, Toucans, and Jacamars)

Class: Aves (Birds)



Fig. 1. Red-crowned woodpecker, *Melanerpes rubricapillus*.

[http://neotropical.birds.cornell.edu/portal/species/overview?p_p_spp=310616, downloaded 5 November 2015]

TRAITS. It is one of the most conspicuous species with bright plumage. It is relatively small-sized as adults are about 16-18cm long and weigh 48g. The bill is long, curved on the upper ridge and wide across the nostrils, black and with a pointed chisel-like tip. Their feet have zygodactyl arrangement where two toes point forward while two point backward and contain talons. They have black and white barring on their back and wings, a white rump and grey-brown underside and face. The short black and white mottled feathers of the tail are strong with stiff barbs and shaft (Winkler and Christie, 2010). The male has a lower white forehead with the bright red crown on the upper forehead and gets orange-red on the nape (Fig. 1). The crown and nape of the female is paler red than the males. Young birds have a much duller and browner head and nape (Gorman, 2014). The nostrils of the bird are covered with pale yellow tuft. The tongue is long, barbed at the sides and associated with two salivary glands that secrete a sticky fluid. The woodpecker had a small brain and thick skull to facilitate the transmission of shocks and its absorption by the body when hammering and tapping. It has a strong neck, tough beak and tail feather muscles to allow its swift movements while wood-pecking (Winkler and Christie, 2010).

ECOLOGY. The red-crowned woodpecker is a native residential bird found in Tobago. It also occurs in regions of Central America and some islands such as Costa Rica, Colombia, Venezuela and Guianas (Fig. 2). It is relatively widespread and found in a range of habitats including forests, woodland, coastlines, gardens, and plantations. It is most commonly found at lower levels in opens areas than in heavily vegetated areas. The species is omnivorous and thus feeds on foods such as ants, beetles, termites, small spiders, larvae found in tree trunks and fruits like berries and papayas. It also ingests nuts, tree sap, and nectar from flowers (Gorman, 2014). Interspecific interactions are observed with other woodpeckers in which they compete for food and territorial sites. There is habitat overlap and competition with other species such as black-cheeked woodpecker, Hoffmann's woodpecker, golden-naped woodpecker and tityras. The species is of least concern on the Red List since their populations are common and expected to increase (Winkler and Christie, 2010).

SOCIAL ORGANIZATION. The red-crowned woodpecker is a relatively terrestrial and solitary bird. It may be described as sedentary since it stays in the same habitat all year long (Gorman, 2014). A study showed that a male woodpecker utilized the same roosting tree for several nights indicating its inflexibility to find new sites (Goossen, 1988). It excavates about 23m high and mostly on the underside of the branch of dead trees, soft wood, fence posts or large cacti to construct their nest-hole (Hilty and Brown, 1986). The species is sexually dimorphic since the males wear the sexual badge indicated by the bright red crown patch which is recognized by other woodpeckers. The males are also responsible for the construction of the nest-hole prior to breeding which usually take 2 weeks (Fig. 3). Additionally, they have a longer bill length (10% longer) than females indicating its complexity of foraging. There is a difference in territorial use as both sexes uses different sections of the nest-hole during the day. The male may use aggressive attacks to deter the female and other birds from entering the nest-hole. It also makes comparatively louder and more frequent calls when it is in flight (Winkler and Christie, 2010).

ACTIVITY. The red-crowned woodpecker is diurnal since most activity occurs during the daytime while at nighttime it roosts in its hole. It enters the roost nest about twenty minutes before or after sunset in some cases. Most of its time is spend on trees and it occasionally comes to the ground to feed. It may move to neighbouring trees or places with an abundance source of their food types. The male and female uses the same nest-hole however they roost individually. Two woodpeckers never enter a hole at the same time (Fig. 4) (Goossen, 1988). Once it finds a suitable site for the hole construction, the woodpecker will spend several days to excavate the single site. Some species may also become adapted to thriving on a particular tree type.

FORAGING BEHAVIOUR. The red-crowned woodpecker forages alone or in pairs in preferably middle and lower levels of the forests searching for insects, fruits, sap or nectar from flowers (Hilty and Brown, 1986). It feeds on anthills or an insect-boring tree which helps improves the health of the trees from invasions (Fig. 5). They also drink water from puddles that are collected on tree forks and hollows. The diets are adapted to the habitats in which they live in. The woodpecker taps the trunks of trees with its head which produce a sound that is used to determine the quality of the wood and to find cavities. Pecking is done at speeds of about 600-700cm/s to excavate and tear pieces of bark using the long chisel-tip bill (Winkler and Christie, 2010). If pecking is done continuously, it is known as hammering which forces the bill into hard

substrates. After the bark and other layers are removed, the bill pierces rows, or small holes to expose insects or sap from the tree. Gleaning occurs when the woodpecker remains perched on a branch clinging well with its feet and stiff tail for support on vertical surfaces. In this position, it reaches for nearby foods like overhanging succulent fruits and berries. Probing is done when the tongue, moist with sticky secretions is extended into crevices of trees to obtain small insect larvae (Winkler and Christie, 2010). It has also been found that these species use anvils to help disintegrate large pieces of food into smaller segments for consumption or storage in the hole (Gorman, 2014). It swiftly moves on vertical surfaces by hopping forward and flying backward.

COMMUNICATION. Vocal communication: It has a distinct song that is lengthy, wavering and ends in an abrupt note: '*churr churr krrr*'. '*Wicka wicka*' calls are heard from males during their display. They give long distance calls to reveal its location such as territorial calls heard during the breeding season, to communicate with related members, alarm calls, low agonistic calls, nesting calls at the hole and low intimate calls between partners. The screams are prominent when the woodpecker is captured by predators or wounded (Winkler and Christie, 2010). Visual communication: The markings of the feathers can be used as camouflage and mimicry however the bright colours can be easily recognized by mates or predators. Bill pointing, bobbing, lateral swinging, and flight manoeuvre are used as antipredatory responses. The woodpecker is known to enter their hole tail-first and roosts with its head near the entrance as defense position in the event of an attack (Goossen, 1988). Auditory Communication: Drumming and tapping of tree trunks are signals used by both sexes to determine wood quality, hole sites and during foraging (Hilty and Brown, 1986). Loud wing noises while in flight is produced as territorial announcements and during path change.

SEXUAL BEHAVIOUR. The breeding season occurs from March to July in Tobago, February to June in Costa Rica and Panama, May to November in Venezuela and May to June in Colombia. The bright plumage of the species and drumming by both sexes is done to attract mates. Copulation is initiated by the females once she finds a suitable male's hole-nest to rear her babies. When the male is nearby, she first flies to its hole and then to a nearby branch and positions into a crouch. The male will respond by flying towards her, where he mounts her for about 6-16 seconds and departs. There may be cases of another male intruding which usually results in aggressive exchanges between both males in which the male with the territory wins. After the copulation, the male and female preens and communicate with low calls and mutual tapping at the nest-hole. They are monogamous and thus will stay together year round. The female lays a clutch of about 3-4 round eggs white in colour. Both parents assist in incubating the eggs and brood care which hatches after 10 days. There are instances where a female may produce two broods each year (Winkler and Christie, 2010).

JUVENILE BEHAVIOUR. The juveniles stay in the nest in its parent's care for about 31 days. The appearance of the juvenile is duller than the parents as the feathers and crown are pale in colour and has overall browner areas. As it develops into a fledgling, it attains healthy feathers and wings which are preened by the parents for some time (Winkler and Christie, 2010). The parents forage during the day and returns with food in its beak which is regurgitated into the young's mouth. Once the chick is fully grown it is ready for flight to leave the nest and can preen and forage independently.

ANTIPREDATOR BEHAVIOUR. When the red-crowned woodpecker is in flight and it spots danger or a potential predator, it quickly changes flight direction producing loud wing flaps and alarm calls. When it withdraws from confrontations with an opponent, bobbing of the head while swinging the body and associated low frequency calls are observed. At lower levels, it exhibits agonistic displays such as bill pointing where the head remains firm and the bill is directed towards the opponent. In other cases, it may swiftly fly towards the opponent while hitting the substrate with its beak which may lead to a chase and aggressive attacks. These behaviours involve low frequency calls that are transferred over long distances with brief inflights. The woodpecker can retreat to their holes when it is being chased by large predators (Winkler and Christie, 2010).

REFERENCES

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- Gorman, G. (2014) Woodpeckers of the World: The Complete Guide. UK: Bloomsbury Publishing Plc.
- Hilty, L.S. and Brown, B. (1986) A Guide to the Birds of Colombia. UK: Princeton University Press.
- Winkler, H. and Christie, D. (2010) Woodpeckers – Helm Identification Guides. UK: AandC Black Publishers Ltd.

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Fig. 2. Distribution range map for red-crowned woodpecker (*Melanerpes rubricapillus*).

[<http://www.hbw.com/species/red-crowned-woodpecker-melanerpes-rubricapillus>, downloaded 5 November 2015]



Fig. 3. A male red-crowned woodpecker constructing his nest-hole.

[<http://ibc.lynxeds.com/photo/red-crowned-woodpecker-melanerpes-rubricapillus/male-bird-working-his-cave>, downloaded 5 November 2015]



Fig. 4. Male and female red-crowned woodpeckers at their nest.

[https://farm8.staticflickr.com/7108/7479237768_1ca89f2ac6_z.jpg, downloaded 5 November 2015]



Fig. 5. A male red-crowned woodpecker feeding on insect larvae on a rotten branch.

[<http://ibc.lynxeds.com/photo/red-crowned-woodpecker-melanerpes-rubricapillus/adult-male-extract-insect-larvae-branch-rotten>, downloaded 5 November 2015]

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