

Campephilus melanoleucos (Crimson-crested Woodpecker)

Family: Picidae (Woodpeckers)

Order: Piciformes (Woodpeckers, Toucans, and Jacamars)

Class: Aves (Birds)



Fig. 1. Crimson-crested woodpecker, *Campephilus melanoleucos*.

[<http://www.oiseaux.net/photos/michel.giraud-audine/pic.de.malherbe.1.html#monde>, downloaded 7 November 2012]

TRAITS. One of the largest woodpeckers ranging from 33–38 cm in length and 180-285 g in weight (Wikipedia, 2012). This species is easily distinguishable by its bright red crest and sides of the head. *Campephilus melanoleucos* males and females have all black plumage on their backs. Adult males have a red line tracing from their bills to their throats. Adult females show a

black forecrown with broad white stripes across the sides of their heads. White lines run down the sides of the black throats of both sexes and trail along their shoulders to meet in a “V” on their backs. In flight both sexes show white in their wings. Juvenile males are similar in appearance to adult females with the exception of red on the side of the head. Bill colour is dark gray with a paler gray at the base. Tarsi and toes are pale green or brownish gray (Wetmore, 1968, in Kilham, 1972). One account of sexual dimorphism in iris color was documented in Venezuela, 1 female with iris red, 2 males with iris yellow (Willard, et al. 1991, in Neotropical Birds Online, 2012). In both sexes wing length averages 184 mm, tail length averages 109 mm, tarsus length averages 37 mm (Wetmore, 1968, in Kilham, 1972). The crimson-crested woodpecker closely resembles the pileated woodpecker of North America having similar plumage and size.

ECOLOGY. Species occurs in a wide range of habitats, favouring humid lowland forest. Resident breeding grounds found in Trinidad and also south and north provinces of Panama and Argentina (Short, 1970). Excavated holes used for feeding are often converted to nesting holes in the breeding season. On average 3 white eggs are kept in nesting holes that are dug out usually in large dead trees. Both parents care for the eggs; biparental care. The entrance to these nesting holes is fairly large, oval shaped; 45-50cm in diameter. They are insectivorous birds and mainly eat insects, such as ants, beetles and their larvae. There is variation in their diet with some seeds, fruits, berries, and nuts.

SOCIAL ORGANIZATION. Usually found moving in close company as pairs (Wetmore, 1968, in Kilham, 1972). The larger crimson-crested woodpecker often displaces the smaller lineated woodpecker from trees when foraging, but without any confrontational behaviour (Kilham 1972). Crimson-crested woodpeckers have also been observed foraging in areas where marmosets have already established feeding grounds. These two also do not display any hostility and ignore one another. *Campephilus melanoleucos* is a very tame woodpecker (Kilham 1972). Very little quantitative data is available on the territoriality. At one site in southeastern Peru, estimated a density of 0.25 pairs/100 ha. They engage in agonistic behavior when defending territory. Both sexes exhibit territorial behaviour towards each other.

ACTIVITY. The behaviour of this species resembles that described by Tanner (1942) for the ivory-billed woodpecker (*Campephilus principalis*). The crimson-crested woodpecker has not been the subject of any detailed reports. This species displays diurnal behaviour, roosting at night in their dug out holes and feeding during the day in specialized routines. Small social groups of about 4-5 individuals are usually seen in large dead trees. Females show greater activity during the day than the males. An almost constant feature with pairs was the greater activity of the female, as they are the first to leave roosting/nesting holes (Kilham, 1972). Two females were observed in studies by Kilham (1972), moving about trunks of trees trying to strike the other, may be over territory or nest protection. In observations of habitats of the crimson-crested woodpecker in Panama (Kilham, 1972), two males were observed where one male was chasing the other in bursts of short, powerful take-offs from tree to tree, maybe as a sign of dominance. When resting, individuals usually remain side-by-side in pairs (Kilham 1972).

FORAGING BEHAVIOUR. Various foraging, communication and breeding behaviours of woodpeckers involve drumming and hammering using the bill. Of the family Picidae, members have powerful bills for drilling and drumming and long tongues that are used for extracting food. There are five main methods of foraging observed including, pecking, percussion, scaling, probing and digging. Crimson-crested woodpeckers uncover food sources in the shallow layers of wood (Kilham 1972). Exploratory pecks are done without digging into the wood in the effort to cause larvae to move around in their tunnels for easier access or to differentiate between open tunnels and solid wood (Kilham 1972). Crimson-crested woodpeckers combine pecking with heavy blows to dislodge large pieces of loose bark in search of implanted larvae (Kilham 1972). Bills are used to explore insectaries with their long tongues (Kilham 1972). Their tongues have “short, narrow, sharp tips that form a stiffened spear point” (Wetmore, 1968, in Kilham, 1972). Crimson-crested woodpeckers may dig holes up to 10 cm deep on rotted stubs when foraging for deep lying prey (Kilham 1972). Foraging behaviour differs with seasons. During the dry season pairs often forage together within about 15 m of each other. During the rainy season foraging occurs on smaller limbs and mostly on the underside. This may be due to the fact that during the rainy season insects are more abundant and accumulate mostly on the moist undersides of branches.

COMMUNICATION. This species is usually silent; however it has a variety of distinct calls. It most frequently makes calls during the breeding season. Described as a hollow, popping series of notes, sometimes delivered in a rapid chatter: “*tkep-tkep-tkep*” (Kilham, 1972). Pairs may also express closeness through calls such as “*wuk wuk, wrr wrr*”, and “*uh uh*” (Kilham 1972). When disturbed at a nesting cavity, a variety of alarm calls are displayed such as a repeated “*ca-wa-rr-r*” call is given (Kilham, 1972). Both males and females also deliver a high-pitched “*put put puttas*” call (Kilham 1972). Crimson-crested woodpeckers advertise “mechanically” by drumming on trees, a characteristic behavior of woodpeckers. Crimson-crested woodpecker drums by making an initially strong blow, followed by a vibrating tremble of weaker notes that is described as “*DA-drrr*” or as 3-5 heavy strikes (Kilham 1972). These drumming sounds are made during various situations such as courtship procedures, declaration of dominance, territorial conflicts, and sometimes only for keeping in contact with other individuals throughout the day. Usually silent fliers, crimson-crested woodpeckers often make heavy sounds which may be an effort to “keep each member of a pair informed when the other moves and in what direction” (Kilham, 1972). Heavy-wing noises are a common feature of contact behaviour in birds.

SEXUAL BEHAVIOUR. During the most active periods of courtship “bill-touching” between male and female crimson-crested woodpeckers is common. The pair moves close together with their crests raised and engage in bill-touching. This focus on bill touching during the courtship display may be related to “the way a male pecks down at the bill of the female while copulating” (Kilham 1972). A duet of drumming is done by both male and female before approaching each other. The male will fly to the female's tree which is usually only about 4 m away (Kilham, 1972). The female will move in a vacant branch and bend low as the male moves towards her. The male will then mount on top of the female and peck gently down at her bill four to five times and eventually fall to the left and make contact (Kilham 1972). As observed by Kilham in Panama (1972), Crimson-crested Woodpecker begins nesting around the end of the rainy season usually in November and continues on through January (Kilham, 1972). In Trinidad nests also

reported around April, February-April in Suriname, and in February in Colombia (Kilham, 1972).

JUVENILE BEHAVIOUR. Limited information is available for juvenile behaviour. It has only been observed that often juveniles remain with adults in the nest and are fed by males (Kilham, 1972). Juveniles display begging behaviour and are fed grubs by regurgitation. Distinct vocalizations are not displayed by the young. This may be due to the fact that in the tropics, the range of their habitats, the birds are at a large threat of predation and such will keep from attracting attention (Kilham 1972).

ANTIPREDATOR/INTRUDER BEHAVIOUR. Nest stubs are located high above ground to minimize attraction to climbing predators (Kilham, 1972). The crimson-crested woodpecker is resident in highly predatory grounds in the tropics and minimizes attraction to themselves by little to no confrontation with other animal interactions unless a direct attack is conducted (Kilham, 1972). One parent remains at the nest with young while the other is searching for food. The crimson-crested woodpecker may be found in mixed-species feeding flocks (Short, 1970). They often seek to stay on the edges of these groups. This flocking behaviour increases anti-predator awareness. Individuals may display lengthening of wings to full when faced by a predator or intruder (Short, 1970). This wing extending flashes the white in the undersides of the wings. The crest is often raised in the presence of intruders and seems to reflect excitement in response to other external stimuli such as other species. These displays are often accompanied by a series of other displays usually including rapping or high-pitched calls (Kilham, 1972).

REFERENCES

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