

## *Tyrannus melancholicus* (Tropical Kingbird)

Family: Tyrannidae (Tyrant Flycatchers)

Order: Passeriformes (Perching birds)

Class: Aves (Birds)



**Fig. 1.** Tropical Kingbird, *Tyrannus melancholicus*.

[<http://ibc.lynxeds.com/photo/tropical-kingbird-tyrannus-melancholicus/suiriri>, downloaded 14 September 2014]

**TRAITS.** *Tyrannus melancholicus* is commonly known as the tropical kingbird (Fig. 1). The tropical kingbird is very similar and slightly bigger than most kingbirds. It can be differentiated from other species mostly by the kind of call they make, their bill sizes and the tail pattern. The tropical kingbird has a reddish orange patch on its crown which is mostly concealed (Fig. 3). Both the male and female look very alike. The female weighs slightly more than the male, and the crown patch is slightly larger in the male than the female. Its average wingspan is about 12cm. It has a slightly notched brownish black tail. The tail is long, about 18cm in length. The edges of the covert wings and tail appear to be whitish grey. The head appears to be grey with darker cheeks. The neck area is whitish. The chest area is olive green with the rest of the under body yellow. It has a large black bill and feet. The iris is dark brown. Its overall length is 18-23cm and weighs from 32-43g (Stouffer and Chesser, 1998).

**ECOLOGY.** The tropical kingbird is a widespread tropical bird (Brush, 2005). It mostly prefers the temperate and tropical climates. They are specific to the Americas. They are found in North America as far as Arizona and along the range through Central America to South America as far as the south of Argentina. They are hardly found in Grenada, Tobago and Trinidad and may even stop breeding in these areas (Stouffer and Chesser, 1998). They are found in open woodland areas near ponds, river edges and streams. They also inhabit residential and urban areas. They hardly inhabit densely forested areas and prefer areas such as open parks and suburbs where trees are scattered or isolated. They can be found at an elevation of up to 2000m in open woodlands, cotton woods in particular (Stouffer and Chesser, 1998).

**SOCIAL ORGANIZATION.** Some tropical kingbirds are migratory. The non-migratory tropical kingbirds stay at one territory for the whole year even during the nonbreeding season. In one study it was observed that a pair of mating tropical kingbirds stayed in the same nest in northern Argentina for four seasons consecutively (Jahn et al., 2009). Migrating kingbirds move in flocks of 20-30 birds (Stouffer and Chesser, 1998). Most of the birds at the northernmost and southernmost areas move towards the warmer part of Central America after breeding. A few of them in groups of two to five stay in the fall and winter until the next breeding season (Jahn et al., 2009). The tropical kingbirds very rarely interact with other kingbirds and their habitats. They are mostly chased away when they feed close to other kingbird species. They tend to become hosts for different species of cowbirds. The cowbird lay eggs into the nest of the tropical kingbirds and are raised by the kingbirds as their own (Stouffer and Chesser, 1998).

**ACTIVITY.** These birds are mostly diurnal and fly around all day hunting for food. They hunt their prey in flight (Fig. 2). They can make flights of more than 15m from a high open exposed perch (Brush, 2005, 130-132). They sometimes hunt flying insects at night only in the presence of artificial light. They make calls all day and have a special song called dawn song which they sing at dawn till sunrise. They make active calls during the breeding season (Stouffer and Chesser, 1998).

**FORAGING BEHAVIOUR.** The tropical kingbird feeds mostly on insects and occasionally on fruits. They are therefore primarily insectivores. They catch flying insects in mid-air by sallying for a long while. This is hawking, the main mode of foraging for this bird (Brush, 2005, 130-132). They chase their prey in the air and after a while acrobatically catch it while in flight (Fig. 5). They are able to sally around and catch more than one prey before returning to a perch (Fitzpatrick, 1980). Fitzpatrick (1980) made 425 observations on the foraging method of the tropical kingbird, and 94% were accounted for by the use of this technique. They also hover and obtain food from vegetation by plucking. They sometimes go below the fruit and swallow it whole (Fitzpatrick, 1980). They also sometimes attack prey on the ground and bring them back to the perch to kill and consume. These birds forage during the day time mostly. They sometimes do feed at night close to artificial source of light (Fitzpatrick, 1980). They feed on greater varieties of insects during the dry season (Jahn et al., 2009). They feed on insects such as termites (Isoptera), beetles (Coleoptera), wasps and bees (Hymenoptera), dragon flies (Odonata), butterflies and moths (Lepidoptera) and grasshoppers (Orthoptera). The fruits they feed on are mostly berries and seeded fruits such as guava (Wong, 2004) (Fig. 4).

**COMMUNICATION.** *Tyrannus melancholicus* is a song bird which communicates by vocalization. Their common call sounds like a twittering high pitched, “tre-ee-ee-eel” and “tril-il-

il-lil” (Stouffer and Chesser, 1998). They make these calls when they see other tropical kingbirds to greet them. Also when a predator is sighted they chase them with these calls. The male also use this call and flaps the wings when it is courting. These calls are made during the whole day including mid-day when all the other birds are quiet. The tropical kingbird also gives a special song before all the other birds start in the morning called the dawn song. The dawn song starts off with slow short twitters and then it keeps ascending until the sun appears (Mobley, 2004). They start to sing at dawn and they stop singing as soon as the sun rises and they see the light from the sun. They do not sing the dawn song again until the dawn of the next day. The male make soft calls to the female when it spots a suitable nesting site. It also keeps squatting in that spot while making the soft call. They also make harsh series of call when they are faced with predators. They become aggressive when defending their nest and in some instances its crown becomes ruffled (Stouffer and Chesser, 1998). When the tropical kingbird is in flight their wings make a crackling sound when they are close by.

**SEXUAL BEHAVIOUR.** The tropical kingbird is known to be socially monogamous (Skutch, 1954). Further studies are yet to be done to show extra pair copulation. When courting the male birds call and flap their wings in the presence of the female. Also when a suitable nest is located it begins to squat in that area and make soft calls. This allows for pair bond formation of both birds which normally lasts throughout the whole year or maybe for a whole mating season (Smith, 1966). The nest is located in high tree canopies and made of materials such as twigs, dead vines, weed stems, dry grass and root stems. The female builds the nest. The nest is opened in a cup shape. The birds have one brood in a season and produce 2-4 eggs at an interval of 1-2 days per season. This varies on the breeding location of the kingbirds. The egg is oval in shape with a cream colour and has dark spots. The incubation process is carried out by the female that lasts for 15-16 days. The male tropical kingbird stays close to the nest at all times and even goes closer when the female leaves to forage. They tend to be very aggressive defending the nest against predators. Both the male and female provide food for the young. The young fledge in about 18-19 days. They are continually fed by the parents after fledging and by 32-33 days they become independent. The breeding range for the tropical kingbird is very broad and hence the breeding timing is different at various locations (Stouffer and Chesser, 1998).

**JUVENILE BEHAVIOUR.** The juvenile tropical kingbird appears similar to the adult. They just have a smaller red crown patch. Their upperparts appear to be more brownish and the edges of the wings are paler. Also the primaries of the juvenile are broader and lack notching until it grows bigger (Stouffer and Chesser, 1998). It takes the young birds about 18-19 days to get well developed wing feathers and wing muscles for flight. They continue to be fed by their parents after fledging for about two weeks. In almost a month they begin to fly, become independent and begin to feed on their own (Wong, 2004).

**ANTIPREDATOR BEHAVIOUR.** *Tyrannus melancholicus* become very aggressive when their territories are attacked by predators. They tend to even attack other kingbird species as well if they come close to their nest. They snap their bills when they are chasing predators or even fighting with each other (Smith, 1966). They attack predators either in groups or pairs and sometimes individually. They even attack those that are much bigger than them such as the toucans. Their predators observed are; swallow tailed kites (*Elanoides forficatus*), Aplomado falcons (*Falco femoralis*), and chestnut mandibled toucans (*Ramphastos swainsonii*). The falcon is known to

attack and prey on the adult tropical kingbirds. The swallow-tailed kites and toucans attack the eggs and the young in the nest (Wong, 2004).

## REFERENCES

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Posted online: 2014



**Fig. 2.** Tropical kingbird catching prey in midair.

[<http://www.reservacostanera.com.ar/wp-content/uploads/2014/03/suirir%C3%AD-real-JST-3-14.jpg>, downloaded 14 September 2014]



**Fig. 3.** Reddish-orange patch on crown of *Tyrannus melancholicus*.

[<http://www.tyrannusmelancholicus.com.br/cronicas/1360/1-2-3-de-oliveira-4>, downloaded 14 September 2014]



**Fig. 4.** *Tyrannus melancholicus* feeding on fruit.

[<https://www.flickr.com/photos/alejocock/5672621616/>, downloaded 14 September 2014]



**Fig. 5.** Tropical kingbird attacking prey during flight.

[<http://thecanadianwarbler.blogspot.com/>, downloaded 14 September 2014]