

CHESTNUT SPARROW [*Passer Eminibey* (Hartlaub)]

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RANGE AND STATUS

Endemic resident, and locally common. Western Sudan, in Darfur Province, south-east to south-west Ethiopia (with a north-eastward extension up the Rift Valley), eastern Uganda, through Kenya (mainly the Rift Valley and the west) to extreme south-west Somalia and south to north-central Tanzania. Rare visitor or possibly very local resident in southern Somalia, north-east Uganda along the Sudan and Kenyan borders. Its population has not been quantified, but it appears to be common across a very large range and it is assessed by the IUCN Red List as Least Concern for global extinction.

DESCRIPTION

Adult male: Head and body deep chestnut, darker, more maroon-chestnut on top and sides of head. When fresh, feathers of side of throat, side of breast and upper breast fringed pale grey-buff, those of flanks and lower breast to undertail-coverts with broad pale tips largely masking the chestnut; in worn plumage (in breeding season) head and body pure deep chestnut. Tail feathers blackish brown, edged cinnamon-buff. Flight feathers blackish brown, edged cinnamon-buff, broadly on secondaries, narrowly on primaries except where broader edges near primary covert tips and just below emarginated parts form two light patches on closed wing. Tertiaries and greater coverts blackish, outer edge and tip broadly fringed chestnut; greater covert tips paler, more buffish, forming narrow bar on closed wing. Alula and primary coverts blackish, narrowly edged chestnut. Median and lesser coverts chestnut. Underwing-coverts and axillaries chestnut; inner borders of underside of flight feathers buffish white, Bill grey-brown or horn above, pale horn below; becoming dark horn or blackish in breeding season, paler basally and below. Eyes brown; legs dull greyish or pinkish brown.



Adult male in breeding plumage (Photo : David Peterson)

Adult female: forehead to hind neck pale greyish olive-brown; mantle and scapulars broadly streaked dark brown and pale buffish brown, lower mantle and scapulars tinged rufous; back to uppertail-coverts rufous-chestnut. Tail feathers blackish brown, narrowly fringed buff. Narrow buff superciliary stripe behind eye, usually tinged chestnut; lores to cheeks and ear-coverts dull brown, variably tinged chestnut on forecheeks and around eye. Underparts pale buffish brown, grading to buffish white on belly and undertail-coverts; chin and centre of throat tinged chestnut. Flight feathers as adult male, but the edgings are paler buff. Tertiaries blackish brown, outer edges and tips broadly fringed cinnamon-buff; greater coverts blackish brown, broadly edged and tipped pale buff; median coverts blackish, broadly fringed pale buff; lesser coverts chestnut-brown. Buff tips to greater and median coverts form two pale wing-bars. Underwing-coverts buffish white; axillaries light buff; inner borders of undersides of flight feathers greyish white. Bill dark horn, becoming black in breeding season; eyes and legs as adult male.



Adult female (Photo : Ron Eggert)

Immature: Juvenile like adult male but paler, chestnut reduced to tinge on rump and lesser coverts, almost or entirely absent on throat and face. **Nestling:** The chicks are naked at hatching. **Size:** (male 10.5-11.5 cm, female 10.5-11.5 cm; **wing:** male 60-65 mm (61.2), female 57-61 mm (59.8); **tail,** male 39-42 mm (40.5), female 36-41 mm (38.0); **bill:** male 10.5- 11.5 mm (11.1), female 10.5-12 mm (11.3); **tarsus:** male 15-16.5 (15.4), female 14.5-17 (15.9); **weight:** Western Kenya, male (n = 16) 12.3-17 g (14.1), female (n = 20) 12-17 g (13.7).



Juvenile male (Photo : David Peterson)

FIELD CHARACTERS

The Chestnut Sparrow (*Passer eminibey*) is a species of passerine bird in the sparrow family Passeridae. It is a small, chunky songbird with a thick bill suited for its diet of seeds, and it is the smallest member of the sparrow family. It is only found in East Africa and has close affinities to its closest relatives in the genus *Passer*, the Arabian Golden Sparrow and the Sudan Golden Sparrow. All three are gregarious (move in or form a group with others of the same kind), and are adapted to the unpredictable conditions of their arid habitat. They are frequently seen to associate with queleas and other weavers. They are very similar, but only the Chestnut Sparrow is clinically different. The male Arabian Golden Sparrow is almost entirely gold-coloured, the male Chestnut Sparrow is mostly chestnut, and the male Sudan Golden Sparrow is intermediate. These three species are considered to be conspecific by the British ornithologist Richard Meinertzhagen. However, the range of the Sudan Golden Sparrow overlaps with that of the Chestnut Sparrow without any known interbreeding in a small area of the Sudan. In breeding plumage the male is almost entirely deep chestnut, with a slightly darker face and black wings and tail; non-breeding males have the chestnut broken by flecks and tips of white on upperparts and black centres to mantle and scapulars, while underparts are white or pale buff with chestnut tips or crescents. The breeding male's legs and feet are horn (pale grey) in colour. Adult males in breeding or non-breeding plumage is virtually unmistakable; only the much larger, longer-billed, black-headed male Chestnut Weaver (*Ploceus rubiginosus*), which has bright white tips to the coverts and the edges of flight feathers, is likely to cause brief confusion. Non-breeding male is scruffy looking, chestnut broken up by white and buff, especially on underparts. Female is closer to other female sparrows, has chestnut rump, wing-coverts and scapulars and warm buff super-cilium; told from female Rufous sparrows by chestnut chin and throat, buffy breast and flanks, small size,

dark eye. The immature bird is paler and duller than the female, without chestnut on the throat, but is separable from the female House Sparrow (*P. Domesticus*) by the brown rump, buffy tone to underparts, light chestnut wash on wing-coverts and scapulars. Immature male becomes blotched with chestnut as it becomes adult.

GENERAL HABITS

Inhabits dry savanna, open woodland and thorn bush, in areas less arid than golden sparrows *P. luteus* and *P. euchlorus*; also marshes and papyrus swamps, cultivation, gardens and human settlements. In Ethiopia occurs up to 2000 m but commoner below 600 m in *Acacia-Commiphora* thornbush, acacia short-grass savanna and *Hyparrhenia-Terminalia-Combretum* broad-leaved tall grass savanna. In Kenya up to c. 2200 m, most breeding at 500-2 000 m; 77% of range within areas of 250-1000 mm annual rainfall, 82% in semi-arid to sub-humid, and scarce in very dry areas. Gregarious; also occurs singly, in pairs or small groups; when feeding often associates with queleas and small *Ploceus* weavers. Said to behave much like House Sparrow *domesticus* (Lynes 1924-1925). Feeds on ground. Generally resident or sedentary, though large flocks sometimes undertake extensive nomadic wanderings in the non-breeding season; and has occurred outside the range given (Short *et al.* 1990, Clement *et al.* 1993). More numerous in the wet season in semi-arid areas of Kenya (Lewis & Pomeroy 1989).

FOOD

This is a ground-feeding species. In nature it eats predominantly a variety of grass and weed seeds, also takes crumbs, insects and other household scraps. Nestlings are fed insects (small beetles) and soft grass seeds, and the young are fed mostly on small insects until they fledge. In captivity their staple diet is a dry seed mix of red and yellow manna. A mixture of different grass seeds (locally obtained wild grass seed, wildseed from Verselaga - 30 garden and weed seeds - canary seed, white millet, babala, Japanese millet) is fed to the birds every day on the ground. At the beginning of the breeding season Guinea Grass (*Panicum maximum*), that was stored in a freezer, is given to the birds. Once a day (in the morning) they receive a soft food mix. Avi-Plus (Finch mix – 500 g) is used as base, and to this 5 g of diatomaceous earth, 5 g of Hi-Energy spirulina, 5 g of Herbs for Birds, 5 g of Zinc Bacitracin (15% granulated), shredded vegetables (carrots, green beans, sweet potatoes, broccoli, spinach, lettuce) and crushed egg shell are added. Lastly, sprouted seed (Japanese millet) is added to this mixture. In captivity, live food is absolutely essential for successful breeding and raising of the chicks, therefore they are fed termites twice a day. Rock salt, oyster shell grit, cuttlefish bone and pigeon grit (black charcoal) are always available.

VOICE

Call a subdued chirping, otherwise unrecorded; males at the nest give a high-pitched twittering trill.

BREEDING HABITS

They are colonial nesters; probably monogamous, and the male sometimes breeds when his plumage is not entirely chestnut. In captivity, this happens in the majority of cases. In the beginning there was a lot of confusion regarding the nesting behaviour of the Chestnut Sparrow. Early reports described the nest as a typical sparrow nest built in a tree. Then it was reported that Chestnut Sparrows had elaborate nests like those of weavers. It was only in 1967, when the ornithologist Robert B. Payne studied the Chestnut Sparrows in a Grey-capped Social Weaver colony, that the correct information was obtained. He found that Chestnut Sparrows only nested by usurping the nests of the social-weavers, and he suggested that the Chestnut Sparrow was an obligate nest parasite (not a brood parasite). However, it is known that besides parasitising the nests of weavers or using their abandoned nests, the Chestnut Sparrow also builds its own nests. It is a small untidy domed structure of thatched grass with a side entrance and exit openings facing downward at each end, lined with fine grass and feathers, placed in a large acacia. Usurped weaver nests may be relined with fine grass and feathers. The Chestnut Sparrow may be evolving from a normal breeder to a nest parasite.



The use of nest boxes in captivity

In captivity they use nest boxes the majority of time. The male displays by crouching, raising and quivering his wings while giving a high, twittering trill at the same time. When the female comes near the male, he will increase his rate of wing quivering, spread and depress his tail, and bow down his head, until his body forms an arc. Copulation will take place in typical sparrow fashion. Wing quivering during copulation by the male is continued, while the female would crouch, quiver, raise her head, and hold her tails horizontally. After copulation the female would fly off and the male would continue displaying. In captivity the incubation period is about 18 to 19 days, the clutches typically contain three or four eggs that are slightly glossy, bluish

to greenish white, and marked with black speckles and blotches. The average size of the eggs is 17 x 12.7 mm. When there are chicks in the nest, the female will be quite agitated, flying up and down the aviary while giving a high-pitched twittering trill. When the female behaves like this, you know there are chicks in the nest and you can increase the amount of termites given. The nestlings are fed by the female alone. After nine days the nestlings are well feathered on the body and head. The young leave the nest after 14-16 days, and are partly dependent on the adults for another two weeks or more.



A young Chestnut sparrow after leaving the nest

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