

Nesting of Wire-tailed Swallow *Hirundo smithii* in Kodiyampalayam, Pichavaram mangrove, Tamil Nadu, India

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Three nests of the Wire-tailed Swallow *Hirundo smithii* were found under bridges in the Kodiyampalayam area of Pichavaram mangroves ($11^{\circ}39'N$, $79^{\circ}79'E$), Tamil Nadu, India. One nest was found under a bridge about 1.5km away from human settlements, but closer to agricultural lands and open water area, which offered the bird foraging habitat and nesting materials. Another nest was found under a bridge, amidst small patches of emerging Mangrove forests and some active prawn farms. The third nest was under a bridge, surrounded by dense mangrove forest. The nest construction started in the month of December in all the cases. The mud nest construction was completed in 17 days in all the three nests recorded.

The swallows constructed the nests on the underside of the bridges as they offer ideal nesting substrate as well as concealment, being out of reach of ground-dwelling predators like mongoose. Further it was easy to collect the mud for nest construction from the nearby water sources.

The nests were constructed on the underside of the bridges towards the middle part. The nests were on an average 150cm above ground level and 90cm above the water level. The half- bowl shaped mud nests were cemented on top of the vertical beam supporting the bridges, and were about 2cm below the ceiling. The average dimensions of these nests were as follows: nest base: 5.5cm., length: 9.2cm and circumference 28cm.

Mud pellets or balls were the predominant materials used to build the nest, consisting of sand, silt and clay. Swallow species, especially those that build mud nest, are closely related and have similar nesting behaviours (Kilgore & Knudsen 1997). Earlier studies of Bran swallows *H. rustica* and cliff swallows *H. pyrrhonota* revealed that their mud nests contained predominantly sand with moderate amount of silt and clay (ibid.). Similarly the Wire-tailed Swallow's nest also contained all the three types of soil particles. The inner regions of the nests are lined with grasses, feathers and some small leaves. The mean dry weight of the nest was 170g, in that 160gm. was sand and the remaining 10gm. was the lining materials such as roots, hairs, leafs, pebbles, small red stones, shells of molluscs and grasses. Both sexes

were involved in the nest construction. It took 17 days for the birds to complete a nest.

Three eggs were recorded in the nest, and they were laid at the rate of one egg per day. The colour of the egg was pale with several dark patches. The eggs weighed 2gm. each, their average length and width being 1.5cm and 0.9cm respectively. Incubation began before the last egg was laid. Earlier studies on swallows report that incubation period lasted between 14 to 15 days but in some sub species it ranged from 12 -17 days (Gorenzel & Salmon 1994). In the present case of Wire-tailed Swallow, the incubation period lasted 12 days. During the incubation, the male spent most of its time near the nest, and their night roosting was also near the nesting site.

References

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