RESEARCH ARTICLE



Seasonality and nesting pattern of warblers in ragi fields

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ABSTRACT

Insectivorous warblers, namely, Indian wren-warbler, *Prinia subflava* Sykes (IWW), streaked fantail warbler, *Cisticola juncidis* (Franklin) (SFW) and ashy wren-warbler, *Prinia socialis* Sykes (AWW) were found frequently in ragi fields. The seasonality of the warblers was observed from August to July. The commencement of seasonal activity of Indian wren-warbler started with the onset of crop tillering. There was continuous increase in their population till earhead maturity and declined then onwards till the crop was harvested. Such a trend was not observed in case of streaked fantail warbler and ashy wren-warbler. Their population was found to be stable throughout the cropping season. All the three species utilized ragi fields for nesting. These insectivorous warblers placed their nests at different heights of the crop stand. The heights of the nests positively correlated with the plant heights (r=0.74; y=7.01+0.67; p< 0.001; SE=7.76).

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INTRODUCTION

Ragi (*Eleusine coracana* Gaertn.) is one of the most important dry land crops in India being cultivated mainly in states of Karnataka, Andhra Pradesh, Tamil Nadu, Orissa and Maharashtra. Several insect pests infest ragi crop during various stages of growth, but very little effort has been diverted towards taking up proper control measures. In such a situation, birds serve as other mechanism of regulating the insect pests.

A wide variety of birds are frequently inhabit dry land cultivations and among them Indian wren-warbler was one of the common birds found breeding in grasslands, cultivated land and in open wasteland (Ali and Ripley, 1987). Few studies taken by Beri *et al.* (1972) in mustard fields, Subramanya (1987) and Subramanya and Veeresh (1998a and 1998b) in rice fields, Ranga Rao, *et al.* (1998) in groundnut fields indicated that birds do frequent various crops. Streaked fantail warbler is a bird of grassland and open cultivated that breads in areas with plenty of grass and ashy wren-warbler breeds in grassland, scrub and bush jungle, cultivated tracts and in gardens but not in forests (Baker, 1933). A number of bird

species frequent cultivated fields mainly for feeding (Subramanya, 1987) and insectivorous birds do frequent ragi fields (Verghese and Subramanya, 1985).

Avifaunal activity is more dependent on food supply, nesting material, sites that provide cover from predator and other natural enemies and other factors contributed to changing avifaunal activity (Anderson, 1972). Both the species Indian wren-warbler and streaked fantail warbler were found in cultivated field almost throughout the year, except when no standing crop was available (Subramanya and Veeresh 1998a). In Australia breeding of different groups of birds and their sequence of nesting correlated with the local period's optimal plant growth (Nix, 1976).

The birds commence nesting in rice fields only when the crop reached certain growth stage (Subramanya, 1987). The nesting activity of streaked fantail warbler synchronizes with the availability of standing crop of rice and rice growing regime (Avery, 1982). Information on exact role played by these insectivorous warblers, seasonality and nesting activity of these birds was lacking. Hence, the seasonality and nesting