

SHORT COMMUNICATION

**Post-breeding habitat selection of the Grey-backed Shrike
(*Lanius tephronotus*) in Sichuan, China**

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Abstract: Forty-three foraging shrikes were observed and their habitat use was assessed on the basis of local sketch maps. Grey-backed Shrikes foraged solitarily and hunted from exposed perches, taking food mainly from the ground but occasionally they hawked insects in the air. The Grey-backed Shrike preferred sites close to human settlements, because these habitats offered a better foraging substrate and places safe from large predators.

Key words: China, foraging, habitat use

Shrikes of the genus *Lanius* are mainly sit-and-wait predators, often perching at the top of high grasses, bushes, or trees while looking for moving prey (e.g., LEFRANC & WORFOLK 1997). The Grey-backed Shrike (*Lanius tephronotus*) is a partial migrant and a polytypic species with two races (*tephronotus* from Nepal to China and *lahulensis* from northern India and several adjacent areas). It is mainly an eastern Palaearctic taxon and a high-elevation shrike (LEFRANC & WORFOLK 1997). Because the current knowledge about this species is relatively scarce (cf. LEFRANC & WORFOLK 1997, HARRIS & FRANKLIN 2000), we decided to present results of our observations on aspects of its biology in the post-breeding period during extensive field studies in Sichuan Province, China. We focused mainly on characterisation of perch-site selection, which is important for understanding how birds evaluate habitat quality (MOSKÁT et al. 2000).

The study was conducted in southwestern and central Sichuan Province, China, during 18–30 August 2002. We made casual observations in semi-open habitats in urban habitats around Kangding and Chengdu at altitudes of 510–4200 m, and in the Wolong Natural reserve at altitudes of ca. 2000–4000 m. The Wolong area is

dominated by forests, including the remarkable forest biotopes that shelter the major population of the endangered giant pandas (*Ailuropoda melanoleuca*); agricultural land was mainly dominated by cornfields and legumes; thickets and pastures were located mainly above 3000 m.

In the study area we observed 43 foraging shrikes. We assessed their habitat use was on the basis of local sketch maps.

The Grey-backed Shrike is common in all areas located at altitudes of between 2000 and 4000 m, sometimes up to 4100 m. Our records in Sichuan show that the species inhabits either young open coniferous forests, with forest clearings dominated by shrubs, or pastures at higher elevations, where tree distribution and diversity declines. At lower altitudes they occur in extensive agricultural valleys near human settlements, where the main habitats are corn and legume fields surrounded by hedges composed of trees or shrubs (see also BISWAS 1962, LI et al. 1976).

Grey-backed Shrikes hunted from exposed perches, taking food mainly from the ground, but occasionally they hawked insects in the air. In most of these areas there are various kinds of poles (including telegraph poles), which serve as perch sites (Table 1). The Grey-backed Shrike preferred sites close to human settlements ($\chi^2 = 42.6$, $df = 1$, $P < 0.001$), probably for two reasons: (1) better foraging substrate due to grazing by cattle; or (2) an antipredatory reaction, because large predators avoid human settlements.

Table 1. Perch sites used by Grey-backed Shrikes in Sichuan, China, during 18–30 August 2002 (n=43)

Perch site	No. of observations	% of observations
Tree	5	12
Bush	10	23
Pole or line	25	58
Fence	2	5
Stone	1	2

In all cases (n=43) the shrikes foraged solitarily, with a minimum distance between hunting individuals of 400 m, but with one exception: a family of two adults and five fledglings foraging together. Basing on direct observations of foraging birds and three pellets, we found arthropods (mainly insects: beetles, grasshoppers, crickets, caterpillars) to be their main food.

We conclude that the availability of good quality perch sites in foraging areas is also important for the Grey-backed Shrike. However, to understand better the ecological requirements of this little-studied species, more intensive studies are needed.

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