

## LISTS OF SPECIES

### Aves, province of Guizhou, China.

Roger L Boyd<sup>1</sup>  
Árpád S. Nyári<sup>2</sup>  
Brett W. Benz<sup>2</sup>  
Guojun Chen<sup>2</sup>

<sup>1</sup> *Biology Department, P.O. Box 65, Baker University, Baldwin City, KS 66006. E-mail: Roger.Boyd@bakeru.edu*

<sup>2</sup> *Department of Ecology and Evolutionary Biology, Natural History Museum and Biodiversity Research Center, University of Kansas. Dyche Hall, 1345 Jayhawk Blvd., Lawrence, KS 66045.*

**Abstract:** We report our inventories of birds observed and collected at three field sites from the province of Guizhou, southeastern China. Our findings detailed herein complement our previous ornithological surveys from Guangxi province, as part of a comprehensive biotic survey of the region. Of 153 total bird species recorded, 17 were new for the province, among which several taxa of conservational importance, such as: Golden Pheasant *Crysolophus pictus*, Tawny Fish-Owl *Ketupa flavipes*, Black-breasted Thrush *Turdus dissimilis*, Fujian Flycatcher *Niltava davidii*, Red-tailed Laughingthrush *Garrulax milnei*, and Slaty Bunting *Latoucheornis siemsseni*. These records provide the most recent insight into the current status of the habitats and the avian biodiversity of an important, yet sparsely surveyed and reported biogeographic region.

#### Introduction

Biodiversity surveys provide a much-needed record of changes in biodiversity composition of biogeographic regions over time, especially in areas that have witnessed intense anthropogenic influences. Such is the case in southeast China, where humans have influenced and reshaped the landscape profoundly over the last century. This region is heavily populated and almost all lowland forest has been cleared. Most areas with relief have been logged or otherwise disturbed, with virtually all habitats consisting of secondary forest (MacKinnon 1997). More recently, Chinese provincial governments have established reserves in attempts to protect remnant forests in the region.

To optimize design of an effective system of protected areas for the region (Lei et al. 2003a; b), it is important to obtain good records of species' distributions and habitat preferences. Hence, as part of a broad series of biodiversity surveys of southern China, complementing previous surveys in the province of Guangxi (Robbins et al. 2006), we here summarize important bird records during two field seasons in 2006 - 2007 for three sites in the province of Guizhou, People's Republic of China (henceforth "Guizhou"). We compare our

records to previous records from Guizhou (Wu et al. 1986; Li and Liang 2004; Zhang et al. 2004), and elaborate on a few noteworthy ornithological records. Records from southern Guizhou are compared with species list for Maolan National Park that was located on the China Species Information System (Xei et al. 2001).

#### Materials and methods

Locations of the three study sites are indicated in Figure 1, and descriptions of each are as follows:

Kuankuoshui National Nature Reserve (28°13'34" N, 107°09'35" E; hereafter "Kuankuoshui"). Kuankuoshui covers an area of 26,231 ha and ranges 650-1762 m in elevation. Mean annual temperature in the reserve is 11.7-15.2 °C, and annual precipitation is 1300-1350 mm (Yu et al. 2004). Our field site was at 1465 m (1450-1760 m), ~35 km east of Tongzi, which is located in north central Guizhou. This area was surveyed by RLB, BWB, and GC during 14-27 April 2006. The terrain was karst geography with a dense mix of deciduous and evergreen forest. The site was surrounded by hills, with one main ridge 300 m above camp.

## LISTS OF SPECIES

The dominant tree around camp was *Cunninghamia lanceolata* (Chinese Fir), mostly planted as several monocultures along the road and hillsides nearby. This species was native or naturalized, as it was also found scattered within the semi deciduous forest and some monocultures had a random distribution with varying age classes. Broadleaved trees along the hillsides were a mix of *Quercus*, *Castanopsis*, *Lithocarpus*, *Cyclobalanopsis*, and *Fagus*. At least one species of *Quercus* was evergreen based on the thick, leathery condition of the leaves in late March, many of which were flecked with lichens and mosses. Several of these trees measured  $\geq 0.8$  m or more in diameter at breast height (dbh) and were 20-25 m tall. A fair number of standing dead trees was present in the forest.

The main understory plants were stands of short bamboo only 2-3 m tall, as well as numerous saplings and smaller woody shrubs usually not in excess of 2-3 m tall (*Cornus*, *Mahonia*, and *Rhododendron*). An abundance of herbaceous flowering plants was present along the trails and stream edges, but not in the woodlands, suggesting light limitations, including *Arisaema*, *Myosotis*, *Iris*, euphorbias, and others. Agriculture was confined to the bottom of the valley and lower edges of the surrounding hills; on several of the hillsides were small tea groves.

Mist-net effort included 54 net-days for 12 m nets set explicitly for birds (i.e., parallel to trails, not fully extended vertically) in the deciduous woodlands and 18 net-days in secondary scrub, plus 27 net-days for 6 m nets set for bats (i.e., frequently crossing trails and streams, fully extended vertically). Netting effort totaled 1188 daylight net-hours and 324 nighttime net-hours.

Dashahe Provincial Nature Reserve: (28°10'01" N, 107°34'30" E; hereafter "Dashahe"). Dashahe covers an area of 26,990 ha and ranges 500-1900 m in elevation. The mean annual temperature in the reserve is 8.2-15.9 °C, and annual precipitation is 1064-1324 mm (Xie et al. 2006). Our field site was at 1365 m (1325-1650 m), ~30 km north of Daozhen and <7 km south of the Chongqing provincial border. This area was surveyed by RLB, BWB, and GC in 29 April-5 May 2006. The immediate area around the camp was a gentle

slope covered by agricultural plots, and natural vegetation was heavily disturbed. In addition to various vegetables, the main cash crop was tobacco, however no tea was grown in the area. On the east side of camp was a small river running north to south, across which was karst topography with steep slopes and a large cliff face with some native vegetation. These forests appeared similar to those at Kuankuoshui, including the presence of a few evergreen *Quercus*, but none of the trees was as large (largest 15 m tall, 0.4 m dbh).

Valley walls held scrubby, secondary growth, mostly dominated by *Pyracantha*, *Cotoneaster*, and *Zelkova*, with several small stands of tall construction-grade bamboo; herbaceous plants included *Cypripedium*, *Arisaema*, *Fragaria*, *Viburnum*, and *Rosa*. None of the forests within 2 km of camp appeared to hold standing dead trees of any significance.

Mist-net effort included 35 net-days for 12 m nets set in the deciduous woodlands and 33 net-days in secondary scrub along the river, plus 26 net-days for 6 m nets set for bats. Netting effort totaled 1128 daylight net-hours and 312 nighttime net-hours.

Shuipu village, Libo County: (25°29'05" N, 107°52'54" E; hereafter "Shuipu"). Our field site was at 645 m (635- 840 m), ~8 km north of the city of Libo. We were unable to obtain information on precipitation and temperature for the area. This area was surveyed by RLB, AN, and GC in 25 March-17 April 2007. The area immediately surrounding camp was a gently sloping valley approximately 500 m wide and several km long, planted with *Brassica napus* (rapeseed or canola). The fields were surrounded by steep, rugged, karst geography mostly covered by mixed deciduous forest. Several of the more rugged and higher slopes had stands of one or more species of evergreen *Quercus*. *Cunninghamia lanceolata* was only present in cultivated plots, and several slopes had been planted in large construction-grade bamboo. The largest and most common deciduous tree was *Liquidambar formosana* (Formosan Sweetgum), several of which were >25 m tall and 0.8 m dbh. Very little diversity of herbaceous groundcover was observed. The large trees on those slopes were

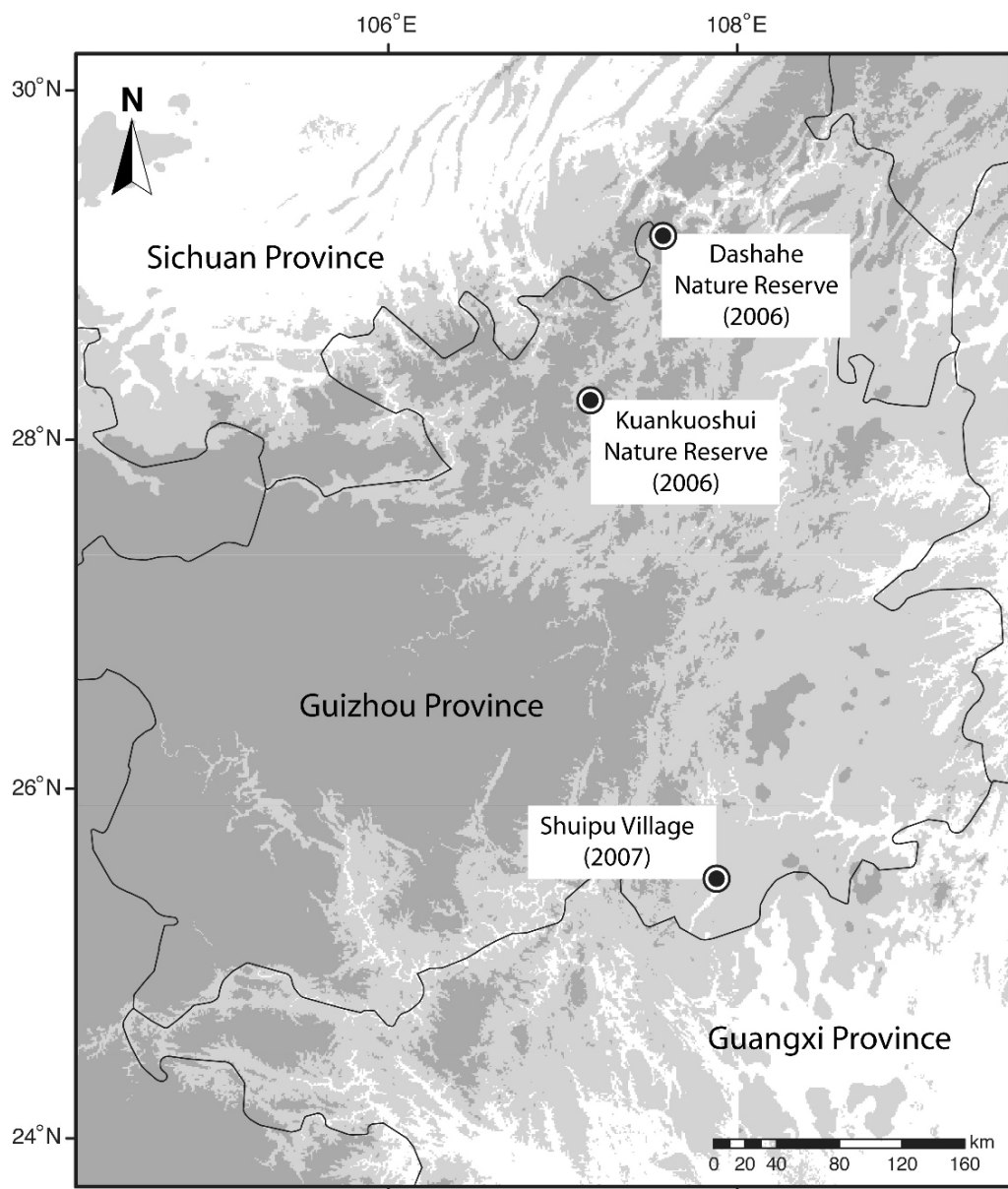
## LISTS OF SPECIES

killed by girdling, and were essentially the only standing dead trees recorded. One perennial stream flowed into the valley from the north but it was completely diverted into the fields in the valley during the time we were present.

Mist-net effort included 442 net-days for 12 m nets set explicitly for birds in a variety of habitats including woodlands, secondary scrub, and crop fields and 61 nets days/nights set for bats and left

open day and night. Netting effort totaled 6036 daylight net-hours and 732 nighttime net-hours.

Scientific specimens (skins, skeletons, pickled in ethanol and formalin), including samples of muscle and liver tissue, were preserved from as many birds as possible to confirm species identification and permit future in-depth study. All specimens and tissue samples are deposited at the University of Kansas Natural History Museum.



**Figure 1.** Location of the three sites surveyed in 2006 (Dashuhe Nature Reserve and Kuankuoshui Nature Reserve) and 2007 (Shuipu village). Areas of light grey correspond to elevations of 500-1000 m, whereas dark grey areas represent altitudes >1000 m.

LISTS OF SPECIES

**Results and discussion**

We recorded 153 species at the three sites: 91 species at Kuankuoshui, 68 species at Dashahe, and 104 species at Shuipu (Table 1). A total of 17 species were new records for the province, where

47 species were shared between the two northern sites, Kuankuoshui and Dashahe, but only 35 species were shared among all three sites. These differences can be explained by latitude, elevation and vegetation differences.

**Table 1.** Species recorded in the province of Guizhou, China.

Species	Kuankuoshui	Dashahe	Shuipu	Documentation
CHINESE BAMBOO PARTRIDGE <i>Bambusicola thoracica</i>			X*	S
COMMON PHEASANT <i>Phasianus colchicus</i>	O			S
GOLDEN PHEASANT <i>Chrysolophus pictus</i>	O	O	R*	S
YELLOW-LEGGED BUTTONQUAIL <i>Turnix tanki</i>	X*			S
SPECKLED PICULET <i>Picumnus innominatus</i>	R	X	R*	
WHITE-BROWED PICULET <i>Sasia ochracea</i>			R*	
GRAY-CAPPED PYGMY WOODPECKER <i>Dendrocopos canicapillus</i>	R	X	O	
RUFIOUS-BELLIED WOODPECKER <i>Dendrocopos hyperythrus</i>	X*			S
GREAT SPOTTED WOODPECKER <i>Dendrocopos major</i>			R*	S
GRAY-HEADED WOODPECKER <i>Picus canus</i>	R	X		
BAY WOODPECKER <i>Blythipicus pyrrhotis</i>	X			S
GREAT BARBET <i>Megalaima virens</i>			O*	S
COMMON KINGFISHER <i>Alcedo atthis</i>			R	
CHESTNUT-WINGED CUCKOO <i>Clamator coromandus</i>			X*	V
LARGE HAWK-CUCKOO <i>Hierococcyx sparverioides</i>	U	X	X	V
HODGSON'S HAWK-CUCKOO <i>Hierococcyx nasicolor</i>	R*			V#
EURASIAN CUCKOO <i>Cuculus canorus</i>		R		S
ORIENTAL CUCKOO <i>Cuculus saturatus</i>	U	U*		
ASIAN KOEL <i>Eudynamis scolopacea</i>			O*	V
HIMALAYAN SWIFLET <i>Collocalia brevirostris</i>	X*			S
COMMON SWIFT <i>Apus apus</i>	R*			S#
FORK-TAILED SWIFT <i>Apus pacificus</i>		C	O*	
ORIENTAL SCOPS-OWL <i>Otus sunia</i>	R		O	#
TAWNY FISH-OWL <i>Ketupa flavipes</i>			X*	V
COLLARED OWLET <i>Glaucidium brodiei</i>	U	O*	R	
ASIAN BARRED OWLET <i>Glaucidium cuculoides</i>			R	
BROWN HAWK-OWL <i>Ninox scutulata</i>	X		X*	#
GREY NIGHTJAR <i>Caprimulgus indicus</i>			R	
ORIENTAL TURTLE DOVE <i>Streptopelia orientalis</i>	U			
SPOTTED DOVE <i>Streptopelia chinensis</i>	R	X		
WHITE-BREASTED WATERHEN <i>Amaurornis phoenicurus</i>	R*		X	
COMMON SANDPIPER <i>Acitis hypoleucos</i>	X			S
COMMON SNIBE <i>Gallinago gallinago</i>			X*	V
JERDON'S BAZA <i>Aviceda jerdoni</i>			R	S
CHINESE SPARROWHAWK <i>Accipiter soloensis</i>	R	X*	X	S
EURASIAN SPARROWHAWK <i>Accipiter nisus</i>		X	O	S
LITTLE GREBE <i>Tachybaptus ruficollis</i>	C			
LITTLE EGRET <i>Egretta garzetta</i>	U*		X	
GREY HERON <i>Ardea cinerea</i>	O			S
CHINESE POND HERON <i>Ardeola bacchus</i>	R			S
ORANGE-BELLIED LEAFBIRD <i>Chloropsis hardwickii</i>			O	
LONG-TAILED SHRIKE <i>Lanius schach</i>	O		O	
EURASIAN JAY <i>Garrulus glandarius</i>	U	R	X*	
RED-BILLED BLUE-MAGPIE <i>Urocissa erythrorhyncha</i>	U	U	O	
CARRION CROW <i>Corvus corone</i>	X	R*		S
BLACK-NAPED ORIOLE <i>Oriolus chinensis</i>	X	X		S

LISTS OF SPECIES

Table 1. Continued.

Species	Kuankuoshui	Dashahe	Shuipu	Documentation
BLACK-WINGED CUCKOOSHRIKE <i>Coracina melaschistos</i>	X*			
GRAY-CHINNED MINIVET <i>Pericrocotus solaris</i>			X	
LONG-TAILED MINIVET <i>Pericrocotus ethologus</i>	R	O	R*	
SHORT-BILLED MINIVET <i>Pericrocotus brevirostris</i>			R*	S
SCARLET MINIVET <i>Pericrocotus flammeus</i>				O
BAR-WINGED FLYCATCHER-SHRIKE <i>Hemipus picatus</i>	X*			
SPANGLED DRONGO <i>Dicurus hottentottus</i>		X		S
BROWN DIPPER <i>Cinclus pallasii</i>		O		
BLUE ROCK-THRUSH <i>Monticola solitarius</i>	X*			S
BLUE WHISTLING-THRUSH <i>Myophonus caeruleus</i>	X	X	R	
ORANGE-HEADED THRUSH <i>Zoothera citrina</i>			R*	
SIBERIAN THRUSH <i>Zoothera sibirica</i>			X*	
SCALY THRUSH <i>Zoothera dauma</i>			R	
BLACK-BREASTED THRUSH <i>Turdus dissimilis</i>			X*	
WHITE-BROWED SHORTWING <i>Brachypteryx montana</i>		X		
BROWN-BREASTED FLYCATCHER <i>Muscicapa muttui</i>		R*	X*	
TAIGA FLYCATCHER <i>Ficedula albicilla</i>			X*	#
MUGIMAKI FLYCATCHER <i>Ficedula mugimaki</i>			X*	#
SLATY-BLUE FLYCATCHER <i>Ficedula tricolor</i>	X		X*	
VERDITER FLYCATCHER <i>Eumyias thalassina</i>	R	R	R	
FUJIAN FLYCATCHER <i>Niltava davidi</i>	O	X	O*	
HAINAN BLUE FLYCATCHER <i>Cyornis hainanus</i>	R		R*	
HILL BLUE FLYCATCHER <i>Cyornis banyumas</i>			X*	
GRAY-HEADED CANARY FLYCATCHER <i>Culicicapa ceylonensis</i>	O	X	U*	
RUFIOUS-TAILED ROBIN <i>Luscinia sibilans</i>			X*	
ORIENTAL MAGPIE-ROBIN <i>Copsychus saularis</i>	R		R	
DAURIAN REDSTART <i>Phoenicurus aureoreus</i>	O	O		
PLUMBEOUS WATER REDSTART <i>Rhyacornis fuliginosus</i>		U		
WHITE-TAILED ROBIN <i>Myiomela leucura</i>	R			
LITTLE FORKTAIL <i>Enicurus scouleri</i>		X		S
SLATY-BACKED FORKTAIL <i>Enicurus schistaceus</i>			R*	
WHITE-CROWNED FORKTAIL <i>Enicurus leschenaulti</i>	R	X	X	
COMMON STONECHAT <i>Saxicola torquata</i>	X		R	
GRAY BUSHCHAT <i>Saxicola ferrea</i>		O	R	
CRESTED MYNA <i>Acridotheres cristatellus</i>		R		
YELLOW-BELLIED TIT <i>Parus venustulus</i>		X	O	
GREAT TIT <i>Parus major</i>	U	O	O	
GREEN-BACKED TIT <i>Parus monticolus</i>	C	O	R*	
YELLOW-CHEEKED TIT <i>Parus spilonotus</i>			R	
YELLOW-BROWED TIT <i>Sylviparus modestus</i>	R*			
BLACK-THROATED TIT <i>Aegithalos concinnus</i>	R	R	U*	
BARN SWALLOW <i>Hirundo rustica</i>			O	
RED-RUMPED SWALLOW <i>Hirundo daurica</i>	R*		C	
ASIAN HOUSE MARTIN <i>Delichon dasypus</i>		C*		S#
COLLARED FINCHBILL <i>Spizixos semitorques</i>	R	U	U	
RED-WHISKERED BULBUL <i>Pycnonotus jocosus</i>			X	
BROWN-BREASTED BULBUL <i>Pycnonotus xanthorrhous</i>	R	U	C	
LIGHT-VENTED BULBUL <i>Pycnonotus sinensis</i>	R*		O*	
CHESTNUT BULBUL <i>Hemixos castanonotus</i>			O*	#
MOUNTAIN BULBUL <i>Hypsipetes mccllellandii</i>	R	R	O*	
BLACK BULBUL <i>Hypsipetes leucocephalus</i>			O*	
HILL PRINIA <i>Prinia atrogularis</i>			O*	
PLAIN PRINIA <i>Prinia inornata</i>			R*	#

LISTS OF SPECIES

Table 1. Continued.

Species	Kuankuoshui	Dashahe	Shuipu	Documentation
JAPANESE WHITE-EYE <i>Zosterops japonicus</i>	X	X	O	
BROWN-FLANKED BUSH WARBLER <i>Cettia fortipes</i>	O		R*	
THICK-BILLED WARBLER <i>Acrocephalus aedon</i>			R*	S#
COMMON TAILORBIRD <i>Orthotomus sutorius</i>			O*	
RADDE'S WARBLER <i>Phylloscopus schwarzi</i>	X*			
CHINESE LEAF-WARBLER <i>Phylloscopus yunnanensis</i>	X			#
PALLAS'S LEAF-WARBLER <i>Phylloscopus proregulus</i>			O*	
YELLOW-BROWED WARBLER <i>Phylloscopus inornatus</i>	X		X	
GREENISH WARBLER <i>Phylloscopus borealis</i>		X		
BLYTH'S LEAF-WARBLER <i>Phylloscopus reguloides</i>	O	O	O*	
ALSTRÖM'S WARBLER <i>Seicercus soror</i>	U	U	R	#
CHESTNUT-CROWNED WARBLER <i>Seicercus castaniceps</i>	O			
RUFIOUS-FACED WARBLER <i>Abroscopus albogularis</i>	X			S#
GREATER NECKLACED LAUGHINGTHRUSH <i>Garrulax pectoralis</i>	O			
MOUSTACHED LAUGHINGTHRUSH <i>Garrulax cineraceus</i>	O		R	
SPOTTED LAUGHINGTHRUSH <i>Garrulax ocellatus</i>		X*		#
RUSTY LAUGHINGTHRUSH <i>Garrulax poecilorhynchus</i>	R			
WHITE-BROWED LAUGHINGTHRUSH <i>Garrulax sannio</i>	R		X	
RED-TAILED LAUGHINGTHRUSH <i>Garrulax milnei</i>	U	R		
STREAK-BREASTED SCIMITAR-BABBLER <i>Pomatorhinus ruficollis</i>	U	U	O	
RUFIOUS-CAPPED BABBLER <i>Stachyris ruficeps</i>	O	U	U*	
CHINESE BABAX <i>Babax lanceolatus</i>		U		
RED-BILLED LEIOTHRIX <i>Leiothrix lutea</i>	C	C	O*	
BLUE-WINGED MINLA <i>Minla cyanouroptera</i>	U*	O*		
RED-TAILED MINLA <i>Minla ignotincta</i>	X	R*		
GOLDEN-BREASTED FULVETTA <i>Alcippe chrysotis</i>	U	X*		
RUSTY-CAPPED FULVETTA <i>Alcippe dubia</i>		X	X*	
GRAY-CHEEKED FULVETTA <i>Alcippe morrisonia</i>	U	O	C*	
BLACK-HEADED SIBIA <i>Heterophasia melanoleuca</i>	R	X		S
STRIATED YUHINA <i>Yuhina castaniceps</i>			O*	
WHITE-COLLARED YUHINA <i>Yuhina diademata</i>	R	X	R*	
BLACK-CHINNED YUHINA <i>Yuhina nigrimenta</i>	O	X	R*	
WHITE-BELLIED YUHINA <i>Yuhina zantholeuca</i>			O*	
SPOT-BREASTED PARROTBILL <i>Paradoxornis guttaticollis</i>	R			
VINOUS-THROATED PARROTBILL <i>Paradoxornis webbianus</i>		U	O*	
ASHY-THROATED PARROTBILL <i>Paradoxornis alphonsianus</i>	O	R	X*	#
GOLDEN PARROTBILL <i>Paradoxornis verreauxi</i>	O*			#
MRS. GOULD'S SUNBIRD <i>Aethopyga gouldiae</i>	R	O		
FORK-TAILED SUNBIRD <i>Aethopyga christinae</i>			R	
RUSSET SPARROW <i>Passer rutilans</i>	R	O	C	
WHITE WAGTAIL <i>Motacilla alba</i>	U	U	O	
GRAY WAGTAIL <i>Motacilla cinerea</i>	R	U		
OLIVE-BACKED PIPIT <i>Anthus hodgsoni</i>		X	O	
ROSY PIPIT <i>Anthus roseatus</i>	R			S
WHITE-RUMPED MUNIA <i>Lonchura striata</i>			C	
GREY-CAPPED GREENFINCH <i>Carduelis sinica</i>	U		O	
COMMON ROSEFINCH <i>Carpodacus erythrinus</i>			O*	
CRESTED BUNTING <i>Melophus lathami</i>			R	
SLATY BUNTING <i>Latoucheornis siemsseni</i>			R*	
GODLEWSKI'S BUNTING <i>Emberiza godlewskii</i>		R*		#
TRISTRAM'S BUNTING <i>Emberiza tristrami</i>			X*	
LITTLE BUNTING <i>Emberiza pusilla</i>	O	R	O*	
YELLOW-THROATED BUNTING <i>Emberiza elegans</i>	C	U		
BLACK-FACED BUNTING <i>Emberiza spodocephala</i>	R	R	O*	

## LISTS OF SPECIES

Several species that are considered "Near-Threatened" in Appendix 1 in MacKinnon and Phillipps were recorded: Golden Pheasant *Chrysolophus pictus*, Tawny Fish-Owl *Ketupa flavipes*, Black-breasted Thrush *Turdus dissimilis*, Fujian Flycatcher *Niltava davidii*, Red-tailed Laughingthrush *Garrulax milnei*, and Slaty Bunting *Latoucheornis siemsseni*. In addition, we observed the following species listed on the China National Protected Wild Fauna List: Oriental Scops Owl *Otus sunia*, Collared Owlet *Glaucidium brodiei*, Asian Barred Owlet *Glaucidium cuculoides*, Brown Hawk Owl *Ninox scutulata*, Crested Goshawk *Accipiter trivirgatus*, Chinese Sparrowhawk *Accipiter soloensis*, Eurasian Sparrowhawk *Accipiter nisus*, and Red-billed Leiothrix *Leiothrix lutea*.

Our arrival at the Shuipu village site in late March provided us with documentation of migrant species generally considered residents (MacKinnon and Phillipps 2000). Upon our arrival, 15 Barn Swallows (*Hirundo rustica*) were present daily, but after 1 April only one pair remained in the area. Red-rumped Swallows (*Hirundo daurica*) began to nest 10 April. Russet Sparrows (*Passer rutilans*) were initially present in large flocks (up to 300) in the large pines near the village, but only a few remained after 1 April. Black Bulbul (*Hypsipetes leucocephalus*) was first seen 29 March in small numbers; on 7 April a migrant flock of several hundred individuals was observed. This behavior was expected of the latter species, but mixed in with this flock were small flocks (6-25) of Light-vented Bulbul (*Pycnonotus sinensis*), Chestnut Bulbul (*Hemixos castanonotus*), and Mountain Bulbul (*Hypsipetes mcclllandii*). Behavior of these species indicated migratory behavior, whereas other individuals of these species were seen in pairs before and after this date. On 17 April, a single territorial Red-whiskered Bulbul (*Pycnonotus jocosus*) was seen in an area that had been visited frequently throughout our visit. In spite of extensive mist netting and exploration on foot, laughingthrushes were not observed until, 9 April when two Moustached Laughingthrush (*Garrulax cineraceus*) were seen and two captured the following day. A single White-browed Laughingthrush (*G. sannio*) was captured on 13 April. We suspect that these

species were migratory and not present in the area earlier. Below we provide brief notes on records of particular interest.

### Golden pheasant *Chrysolophus pictus*

Pheasants are large, usually persecuted by hunting. This species was heard regularly at both Kuankuoshui and Dashahe, but only one territorial male was heard at Shuipu. Their presence, however, indicates fairly low hunting pressure in all three sites.

### Eurasian sparrowhawk *Accipiter nisus*

A territorial pair was observed almost daily circling and vocalizing over the eastern ridge at the Shuipu site beginning 4 April. It was presumed that the pair would breed in the area given this behavior, although they normally breed much further north.

### Taiga flycatcher *Ficedula albicilla*

This species is recently split from *Ficedula parva*, and thus is a new record for Guizhou Province.

### Black-throated tit *Aegithalos concinnus*

Several clutches of fledged juveniles were documented during the first week of April. Most adults observed were in mixed foraging flocks, and did not appear to be in breeding condition, as indicated by gonadal measurements.

### Asian house martin *Delichon dasypus*

Several hundred individuals were seen foraging along the cliff face and overhead at the Dashahe site. These individuals were assumed to be migrants, and were completely absent on some days. These sightings were new for Guizhou.

### Spotted laughingthrush *Garrulax ocellatus*

This species is quite secretive and hard to see. A pair was encountered at ~1600 m in dense understory along the top of a ridge.

### Red-tailed laughingthrush *Garrulax milnei*

This species is considered near-threatened, but was encountered daily at Kuankuoshui. They could be heard singing and calling every morning and evening. Up to eight individuals were recorded foraging and displaying on a single slope.

## LISTS OF SPECIES

### Red-billed leiothrix *Leiothrix lutea*

This species is widely used in the pet trade. It was very common at both Kuankuoshui and Dashahe, but less so at Shipu.

### Ashy-throated parrotbill *Paradoxornis alphonsianus*

This species was not previously documented as occurring in Guizhou, but we documented its presence at all three sites. A flock of  $\geq 15$  birds was commonly seen around camp at Kuankuoshui. Only one or two individuals were seen at the other two sites.

### Golden parrotbill *Paradoxornis verreauxi*

This species was encountered almost daily at Kuankuoshui. It occurred in small flocks of 2-8 birds in short bamboo thickets in the ravines of the karst topography. It was not previously reported as occurring in the reserve or in Guizhou.

### Slaty bunting *Latoucheornis siemsseni*

This is a near threatened species known to winter very locally in Guizhou. It was documented on three occasions in scrubby habitat bordering the canola fields near Shuipu.

## Acknowledgements

We thank our field colleagues Dale Clayton, Sarah Bush, Judith Eger, Burton Lim, Christopher Hayden, Luis Canseco Marquez and Matt Brandley, as well as several local authorities for facilitating our field work. U.S. National Science Foundation grant DEB-030820 supported biotic surveys at both sites.

## Literature cited

- Lei, F. M., Y. H. Qu, J. L. Lu, Y. Liu, and Z. H. Yin. 2003a. Conservation on diversity and distribution patterns of endemic birds in China. *Biodiversity and Conservation* 12: 239-254.
- Lei, F. M., Y. H. Qu, Q. Q. Tang, and S. C. An. 2003b. Priorities for the conservation of avian biodiversity in China based on the distribution patterns of endemic bird genera. *Biodiversity and Conservation* 12: 2487-2501.
- Li, Z. M. and W. Liang. 2004. The studies of bird resources in Kuankuoshui Nature Reserve; p. 286-295 in L. F. Yu, S. X. Xie, and T. L. Wu (ed.). *Scientific survey of Kuankuoshui Nature Reserve*. Guiyang Science and Technology Publishing House.
- MacKinnon, J. 1997. *Protected areas systems review of the Indo-Malayan realm*. Canterbury, Asian Bureau for Conservation.
- MacKinnon, J. and K. Phillipps. 2000. *A Field Guide to the Birds of China*. Oxford University Press.
- Robbins, M. B., A. T. Peterson, A. Nyari, G. Chen, and T. J. Davis. 2006. Ornithological surveys of two reserves in Guangxi province, China, 2004-2005. *Forktail* 22:140-146.
- Wu, Z. K. et al. 1986. *The Avifauna of Guizhou*. Guizhou People's Publishing House.
- Xie, S. X., L. F. Yu, and G. F. Zhang. 2006. The introduction of Dashahe Nature Reserve; p. 1-11 in S. X. Xie, L. F. Yu, and G. F. Zhang (ed.). *The Resources of Dashahe Nature Reserve*. Guiyang Science and Technology Publishing House.
- Xie Y., S. Wang, F. He, and E. Zhao. 2001. *China Species Information System*. Electronic Database accessible at <http://www.chinabiodiversity.com/search/english/readd.shtml>. Captured on October 2007.
- Yu, L. F., S. X. Xie, and T. L. Wu. 2004. The comprehensive report of scientific survey of Kuankuoshui Nature Reserve; p. 1-18 in L. F. Liu, S. X. Xie, and T. L. Wu (ed.). *Scientific survey of Kuankuoshui Nature Reserve*. Guiyang Science and Technology Publishing House.
- Zhang, H. Z., B. Wei, and Z. Y. Liu. 2004. The bird resources in Dashahe Nature Reserve; p. 444-456 in S. X. Xie, L. F. Yu, and G. F. Zhang (ed.). *The Resources of Dashahe Nature Reserve*. Guiyang Science and Technology Publishing House.

Received December 2007

Accepted March 2008

Published online April 2008