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## First Records and First Proven Breeding of Lesser Grey Shrike, *Lanius minor*, in Mongolia


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## First records and first proven breeding of Lesser Grey Shrike *Lanius minor* in Mongolia

M. Deutsch & A. Bräunlich

### Abstract

During a trip to the Dzungarian Gobi in south-western Mongolia a group of German birdwatchers found several territorial Lesser Grey Shrikes *Lanius minor*, and documented an active nest. The species had not previously been recorded from Mongolia. Observations were made near Bulgan gol (Bulgan river; nest coordinates: 46°6'N 91°32'E, 1190 m a.s.l.) in Khovd aimag (Khovd province) on 24 June 2006. Besides two territorial pairs, of which a female could be photographically documented on the nest, at least four more territorial adults were found within an area of about 1.5 km<sup>2</sup>. Based on these records, an abundance of 4 pairs/km<sup>2</sup> can be assumed for this riparian site, which consists mainly of open meadows with scattered bushes and tress.

**Keywords:** Lesser Grey Shrike, *Lanius minor*, breeding record, Dzungarian Gobi, south-western Mongolia, avifauna

### Introduction

In June 2006 a group of birdwatchers from Germany (Christoph Bock, Katja Bräunlich, Markus Deutsch, Martin Grimm, Nana Hesler, Steve Klasan, and Tom Noah) went from Khovd (also spelled Hovd, Chovd, Chowd etc.) to Bulgan in the Dzungarian Gobi, Khovd province, south-western Mongolia. On 24 June, Steve Klasan found a Lesser Grey Shrike *Lanius minor* sitting on a fence, 2-3 km to the north-west of the village of Bulgan and about 50 km from the Chinese border.

The observations described in detail below constitute the first records as well as the first documented breeding of Lesser Grey Shrike in Mongolia. It is not clear if former researchers visiting the area (e.g. PIECHOCKI et al. 1982, HEIDECKE et al. 1992) overlooked the species, just went to different habitats (concentrating research not on birds, but on the autochthonous population of Central Asian Beavers *Castor fiber birulai*), or if the species recently colonized the area.

### Identification and observations

The first bird seen was hunting insects on a short-grass meadow. The identification was straightforward: A black-and-white, medium sized shrike (obviously much smaller than Great Grey Shrike *Lanius excubitor*) with a noticeably stout bill, a relatively short tail, a square-shaped white primary patch and a black mask extending onto the forehead and forecrown, and an obvious pinkish tinge to the breast. The black band on the forehead excluded Saxaul Grey Shrike *Lanius (meridionalis) pallidrostris*, which might be the most likely confusing species at this time of year in this region. Sexual dimorphism of the territorial birds was discernible when adults were seen pair-wise together or at least shortly after each other: The males always showed an obviously stronger salmon-reddish colouration on the breast and belly and a well-defined and more accentuated broad black mask on the forehead and forecrown. This was leading to a more contrasting appearance of males.

Later we found two adults perching in a poplar tree (*Populus* sp.), of which the presumed female was then also observed obviously incubating (46°6'N 91°32'E; fig. 1). In this species only the female is incubating (GLUTZ von BLOTZHEIM 1993) and this could be confirmed by our observations (though GARILOV & GARILOV 2005 mention that males can incubate for short periods too). The nest was situated in the fork of a horizontal branch at a height of approximately 4 m off the



ground and about 2-3 m off the trunk. Since the adults showed no signs of food transmissions we assume that the female was still incubating. Another territorial pair was found just about 150-200 meters from the first pair's nest. Although we did not find a nest we concluded that this was another breeding pair due to the males' aggressive behaviour against all aerial intruders. For example, the male even attacked a Black-eared Kite *Milvus (migrans) lineatus* (fig. 2). Interspecific aggression against crows and raptors is not exceptional and has been observed and described before (GLUTZ von BLOTZHEIM 1993). Interestingly we could not detect any intraspecific antagonistic behaviour between the two males though they were sitting on the same fence occasionally less than 50 meters apart from each other. However, males are known to defend mainly the immediate vicinity of the nest-tree, and this in the time of nest building and incubation only (CRAMP 1993).



Fig. 1: The 'female' incubating. The nest was found on poplar tree in about 4 m height and about 2-3 m away from the trunk. The corresponding male was often seen sitting in the tree close by (photo: M. Deutsch).

The habitat where the shrikes were found consisted mainly of open meadows with scattered bushes and trees (willows *Salix* sp., poplars *Populus* sp. etc.; fig. 3) along the Bulgan river (1190 m a.s.l.). They were used as pasture, but included also some cultivation. Some areas were regularly flooded and used as temporary pasture. Outside the river valley the landscape was characterized by dry mountain-steppe habitat without Lesser Grey Shrikes. Only the valley and the nearest adjacent land seem to match the habitat requirements of the shrikes. Interestingly, we did not find any Lesser Grey Shrikes about 8-10 km downstream (toward the Chinese border) where the much denser vegetation consisted mainly of willows, and where the ground was much moister with many small ponds and no agricultural use at all (neither livestock nor cultivation). The existence of non-intensive mixed farming appears in this particular case to meet the habitat requirements of *Lanius minor*, and according to LEFRANC & WORFOLK (1997) the shrikes have adapted well to this kind of habitat.

The floodplain was quite rich in species and individuals. An annotated bird list is given in the appendix.



Fig. 2: Another 'male' mobbing an over flying Black-eared Kite *Milvus (migrans) lineatus* photo: M. Deutsch).



Fig. 3: The habitat of the Lesser Grey Shrike consisting of an open meadow area with scattered bushes (*Salix spec.*) and trees (*Populus sp.*). Two pairs (one with nest) were found here. The males often using the fence as a perch (photo: C. Bock).

## Distribution

According to VAURIE (1959) the geographical variation in Lesser Grey Shrike is clinal and not well-developed. He recognizes a slightly paler subspecies *L. m. turanicus*, occurring east of the Ural, in Iran and Central Asia. However, in more recent literature the species is regarded monotypic (CRAMP 1993, ROSELAAR 1995, LEFRANC & WORFOLK 1997, DICKINSON 2003).

The Lesser Grey Shrike breeds in the steppe and forest steppe belt from eastern and south-eastern France and north-eastern Spain to the valley of the Katun in the western Altai, Russia and to western Dzungaria (GLUTZ von BLOTZHEIM 1993). During winter, the world population is concentrated in the southern African thornbelt, centred on the Kalahari basin (HERREMANS 1998).

In Kazakhstan it breeds "practically everywhere" (except in areas lacking woodland) on plains and in small hills, including in the southern Altai foothills and in the Zaysan Depression (GARILOV & GARILOV 2005). In China it is according to MACKINNON & PHILLIPS (2000) a rare summer breeder in forested steppes and scrub grasslands of the extreme north-west of the country: in the north-western Alatau Mts. and in the Junggar Basin (Dzungaria), Xinjiang Uygur Autonomous Region. Therefore it was not surprising to find the species breeding in the Mongolian part of the Dzungarian Gobi. Indeed, A. Bräunlich predicted the occurrence of Lesser Grey Shrike in the area just before the group of birdwatchers left for Bulgan.

## Biogeography

The Altai Mountains form an effective biogeographical barrier, separating the low-lying Dzungarian Gobi from the Mongolian upland areas. To the west of Bulgan the land slopes away, and in about 150 km distance altitudes of well below 500 m a.s.l. are reached (in China), while immediately to the north and north-east of Bulgan the Dzungarian Gobi is separated from the Basin of the Great Lakes (with rather high altitudes of c760-1600 m a.s.l.) by the Mongolian Altai, with peaks reaching over 4000 m a.s.l.

Dzungaria (also Junggar Pendi/Basin or Gurbantüggüt Shamo) is an area of semi-desert between the Tien Shan to the south and the Altai to the north. To the west it is bordered by the Trabagatay Mountains, but it is connected to the low-lying steppes of south-eastern Kazakhstan by the river valley of the Black Irtysh (Ertix He/Qara Ertis; including Lake Zaysan) in the north and the Dzungarian Gate further south. These connections are most likely corridors which enable species with a more westerly distribution to colonize the region. Dzungaria is partly fertile and agriculture can be found in extensive irrigated areas, providing additional habitat for birds. Many of the species of Dzungaria are of Western Palaearctic origin, occurring here at the easternmost limit of their range. These include species such as Lesser Grey Shrike, Rufous Nightingale *Luscinia megarhynchos*, Little Bittern *Ixobrychus minutus*, Fieldfare *Turdus pilaris*, Red-backed Shrike *Lanius collurio*\*, European Bee-eater *Merops apiaster*, Eastern Olivaceous Warbler *Hippolais pallida*\*, European Roller *Coracias garrulus*\*, Oystercatcher *Haematopus ostralegus*\*, Cetti's Warbler *Cettia cetti*\*, Red-headed Bunting *Emberiza bruniceps*, and Corn Bunting *Emberiza calandra*\* (species marked with an asterisk \* have not been recorded in Mongolia yet). A trip report from Xinjiang, listing observations from areas not far from Mongolia is given by KILBURN (1998). With the intensification of ornithological research in Mongolia it can be expected that in the future some of the species listed here might be encountered in Mongolia, especially in the Dzungarian Gobi too.

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## Literature

- CRAMP, S. (1993): Handbook for the birds of Europe, the Middle East and North Africa. The birds of the western Palaearctic. Vol. **VII**. - Flycatchers to Shrikes, Oxford University Press.
- DICKINSON, E.C. (ed.) (2003): The Howard and Moore Complete Checklist of the Birds of the World. Revised and enlarged 3<sup>rd</sup> Edition. - London: Christopher Helm.
- GAVRILOV, E.I.; GAVIRLOV, A.E. (2005): The Birds of Kazakhstan (abridged edition). Tethys Ornithological Research Vol. **II**. - Almaty: Tethys.
- GLUTZ von BLOTZHEIM, U. (1993): Handbuch der Vögel Mitteleuropas. **Vol. 13/II**, Passeriformes (4. Teil). - Wiesbaden: Aula-Verlag.
- HEIDECKE, D.; STUBBE, M.; SUMJAA, D.; ANSORGE, H. (1992): Erstnachweise einiger Vogelarten für die Mongolei/First records of some bird species of Mongolia. - 2. Internationales Symposium "Erforschung biologischer Ressourcen der Mongolei" in Halle, Deutschland vom 25.3.-30.3.1992. - Thesen zu den wissenschaftlichen Beiträgen: 55.
- HERREMANS, M. (1998): Monitoring the world population of the Lesser Grey Shrike (*Lanius minor*) on the non-breeding grounds in southern Africa. - J. Ornithol. **139**: 485-493.
- KILBURN, M. (1998): Xinjiang Autonomous Region, China Birding 7-27 June 1998. [www.worldtwitch.com/xinjiang\\_kilburn.htm](http://www.worldtwitch.com/xinjiang_kilburn.htm) (accessed 20 February 2007).
- LEFRANC, N.; WORFOLK, T. (1997): Shrikes: A guide to the shrikes of the world. - New Haven, CT: Yale Univ. Press.
- MACKINNON, J.; PHILLIPPS, K. (2000): A Field Guide to the Birds of China. - Oxford: Oxford University Press.
- PIECHOCKI, R.; STUBBE, M.; UHLENHAUT, K.; SUMJAA, D. (1982): Beiträge zur Avifauna der Mongolei. Teil IV. Passeriformes. - Mitt. Zool. Mus. Berlin **58**, Suppl.: Ann. Ornithol. **6**: 3-53.
- ROSELAAR, C.S. (1995): Taxonomy, morphology and distribution of the songbirds of Turkey: an atlas of biodiversity of Turkish passerines birds. - London: Pica Press.
- VAURIE, C. (1959): The birds of the Palaearctic fauna - a systematic reference. Order Passeriformes. - London: H.F. & G. Witherby.

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## Appendix

The following list contains all observation from an area of c1.5 km<sup>2</sup> where we found the nest of the Lesser Grey Shrike. Observations in square brackets are from an area c8-10 km downstream with low bird and high mosquito activity. We regard most species seen likely to be breeders since at the time of our visit there we encountered no signs of any migration at all.

**Great Cormorant** *Phalacrocorax carbo* maximum 40, 1 nest in poplar / **Grey Heron** *Ardea cinerea* 58 nests in poplar trees with many fledged juv. / **Black Stork** *Ciconia nigra* 2 ad. / **Ruddy Shelduck** *Tadorna ferruginea* 2 ad. / **Mallard** *Anas platyrhynchos* 4 ind. / **Gadwall** *A. strepera* 2 ind. / [**Garganey** *A. querquedula* 1 male] / **Goosander** *Mergus merganser* 7 ind., including 1 female with 2 pulli about 2-3 weeks old / [**Bearded Vulture** *Gypaetus barbatus* 1 ad.] / **Booted Eagle** *Aquila pennata* 1 light morph / **Black-eared Kite** *Milvus (migrans) lineatus* very common, at least 100 ind., no first-years yet / **Peregrine Falcon** *Falco peregrinus* 1 ad. and probably second ad. / **Saker Falcon** *F. cherrug* 1 constantly hunting, attacking female Mallard and Grey Heron / **Eurasian Hobby** *F. subbuteo* 1 pair with nest, juv. probably not emerged yet / **Amur Falcon** *F. amurensis* 1 2<sup>nd</sup> year / **Common Kestrel** *F. tinnunculus* 1 pair with nest / **Demoiselle Crane** *Grus virgo* 2 ad. / [**Common Coot** *Fulica atra* 1] / **Little Ringed Plover** *Charadrius dubius* 2 pairs, but no nest or juv. found / **Common Sandpiper** *Actitis hypoleucos* 2 territories, 2 displaying males / **Mongolian Gull** *Larus (vegae) mongolicus* 1 ad., 2 immat. / **Common Tern** *Sterna hirundo* 1 ad. / [**Pallas's Sandgrouse** *Syrnhytes paradoxus* several heard] / **Stock Pigeon** *Columba oenas* 2 + [1] / **Hill Pigeon** *C. rupestris* 3 / [**Eurasian Collared Dove** *Streptopelia decaocto* 1] / **Common Cuckoo** *Cuculus canorus* 3 / **European Nightjar** *Caprimulgus europaeus* 1 male singing at dawn / **Common Swift** *Apus apus* 5 + [50 high south-west] / **Hoopoe** *Upupa epops* at least 10-12 breeding pairs, feeding ad. all-over, nests in poplar trees, stone dams, earth banks and probably as well in earth burrows / **White-backed Woodpecker** *Dendrocopos leucotos* 1 + [1 pair] / **Northern Wryneck** *Jynx torquilla* 2 / [**Lesser Short-toed Lark** *Calandrella rufescens* more than five, also some singing] / [**Eurasian Skylark** *Alauda arvensis* 1 singing] / **Sand Martin** *Riparia riparia* 3 / **Eurasian Crag Martin** *Ptyonoprogne rupestris* seen, no numbers available, common breeder in the nearby mountains and at cliffs / **Barn Swallow** *Hirundo rustica* 5 / **Common House Martin** *Delichon urbicum* 2 only, but more common at nearby settlements / **Richard's Pipit** *Anthus richardi* 3 singing males on cultivated and set-aside land / **Tawny Pipit** *A. campestris* 6 singing males, at least one ad. warning, on cultivated land + [3 singing males] – a common species in areas with a minimum of vegetation / **Yellow Wagtail** *Motacilla flava* 1 ind. Flying over / **White Wagtail** *M. alba personata* 1 ind. / **Grey Wagtail** *M. cinerea* 1 male with 2 fledged juv. + several single ind. along river – common / **Red-throated Trush** *Turdus (ruficollis) ruficollis* 1 / **Rufous-tailed Rock Trush** *Monticola saxatilis* 2 pairs / **Rufous Nightingale** *Luscinia megarhynchos hafizi* more than 3 singing males, also ad. warning and feeding + [very common, many singing males heard] N. Hesler did tape recordings of some birds / **Barred Warbler** *Sylvia nisoria* at least 3 pairs and 2 more singing males, probably quite common but with low song activity at this time of year / **Great Tit** *Parus major* 3, (no **Turkestan Tit** *P. bokharensis* seen) / [**Azure Tit** *Cyanistes cyanus* 4] / **White-crowned Penduline Tit** *Remiz coronatus* 1 nest plus 2 different birds calling + [3 nests; in this habitat probably very common] / **European Golden Oriole** *Oriolus oriolus* 1 pair + 1 singing in poplar trees / **Isabelline Shrike** *Lanius isabellinus* 7 territories / **Carrion Crow** (black forms) *Corvus corone orientalis* 2 pairs (1 with 5 begging fledged juveniles + 1 pair with nest) plus maximum of 15 ind. / **Common Raven** *Corvus corax* 1 ind. / **European Starling** *Sturnus vulgaris* 200 ind. including 1<sup>st</sup> years / **Rose-coloured Starling** *S. roseus* 20 ind. among European Starlings / **Tree Sparrow** *Passer montanus* very common and numerous / **Eurasian Linnet** *Carduelis cannabina* 10 + [3] – regular / **Common Rosefinch** *Carpodacus erythrinus* at least 10 singing males, very common here + [3 singing males] / **Grey-crowned Goldfinch** *Carduelis (carduelis) caniceps* 5 ind. / **Mongolian Finch** *Rhodopechys mongolica* 1 + [20] / **Red-headed Bunting** *Emberiza bruniceps* common, at least 10 males singing, some ad. warning, one probable nest location on the ground in Chee grass *Achnatherum splendens* / [**Grey-necked Bunting** *E. buchanani* 3 ad., drinking and carrying food]