

REDISCOVERY

The rediscovery of Myanmar's Jerdon's Babbler *Chrysomma altirostre altirostre*

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In Asia's ongoing biodiversity crisis, some of the birds that have become most threatened with extinction are grassland species. The mighty Asian rivers—the Indus, Ganga, Brahmaputra, Ayeyarwady (formerly Irrawaddy), Mekong and Yangtze—once flowed through extensive savannah-like bush and grasslands grazed by large mammals, and were inhabited by a distinct and partly endemic avifauna. When the cultivation of rice and other crops commenced 7,000–10,000 years ago, Asia's characteristic grassland fauna was the first to suffer from the impact of humans. Agricultural intensification in the last few decades has exacerbated the level of habitat destruction. With most of the large mammals long gone, much of Asia's grassland avifauna is now beginning to face extinction (Wright *et al.* 2012).

One of the least-known species adapted to life in Asia's grasslands is the Vulnerable Jerdon's Babbler *Chrysomma altirostre*, first found by T. C. Jerdon in January 1862 near Thayetmyo, Magway region (19.326°N 95.182°E) in the Ayeyarwady floodplain, Myanmar (Jerdon 1862). Other races were soon found—*griseigulare* (Hume 1877) from the lower Ganga and Brahmaputra plains of north-east South Asia and *scindicum* (Harington 1915) from the Indus watershed in Pakistan and Punjab. Despite being the first population to be discovered, Myanmar's Jerdon's Babbler *C. a. altirostre* has spent most of its existence lost somewhere in the Ayeyarwady–Sitaung plain; after its initial discovery the bird quickly disappeared back into

the long grass. Eugene Oates (see BirdLife International 2001) collected a few more specimens in the late 1870s and even suggested that it was common in the area between Wau (17.477°N 96.677°E) and Taungoo (18.934°N 96.433°E), Bago region. When Bertram Smythies, Herbert Smith and Peter Garthwaite published the *Birds of Burma* in 1940, the bird had not been seen again and they stated that the vast grasslands of Jerdon's and Oates's days had already been converted to rice paddies, admitting that no-one knew if Jerdon's Babbler was still present. Fortunately, soon after the book was published, Smith decided to find out. On 9 July 1941 Smith collected a single specimen in the remnants of a huge wetland near Myitkyo (17.605°N 96.809°E), in the Sitaung floodplain. Within a year of this rediscovery Rangoon (now Yangon) was occupied by Japan, and both Smith and Smythies had left Myanmar. In 1953 Smythies added Smith's discovery to the next edition of his book, admitting that the bird had once again disappeared, perhaps for good.

Today's lower Ayeyarwady floodplain around Yangon bears no resemblance to the landscape of Jerdon's day. Rice cultivation has encroached on all but the last fragments of native vegetation, and the area is one of the most densely populated in Myanmar. But guided by satellite imagery, RT had not yet given up hope and identified tiny remnant patches of potentially good habitat that might harbour the last surviving Jerdon's Babblers. An expedition was soon arranged to visit these areas

Plate 1. The area of long grass near Udo, Yangon region, Myanmar, where Jerdon's Babbler *Chrysomma altirostre altirostre* was rediscovered, 31 May 2014.



and try to locate, catch and sample the blood of any remaining birds that were found.

In late May 2014, we set out to inspect various small to medium-sized patches (all < 20 ha) of tall grass and shrubs in the Sitaung river plain east of Bago town (17.337°N 96.485°E), including Wau, where several days were spent surveying. Although the area looked promising and we found around a dozen Eastern Grass Owls *Tyto longimembris*—a sensitive grass-dependent bird of high indicator value—Jerdon's Babblers were not detected and have probably gone from the area. After a two-day break in deciduous forest habitat, we went to our final grassland site near Udo (17.385°N 95.858°E), Yangon region. Here we found some of the largest remaining patches of tall grass, probably exceeding 50 ha, thanks to an abandoned agricultural research station, once operated by the Yangon City Development Council. The habitat has remained intact through a combination of luck and neglect, although new business interests are investing in fish farms nearby and a few squatters are trying to earn a living on the land once used for rice-growing experiments. On 30 May 2014, after just an hour in this habitat, we detected an unusual song reminiscent of sound-recordings of Jerdon's Babbler from north-east India. The bird readily came in to playback and revealed itself to be a

magnificent adult Jerdon's Babbler. Over the course of the next 48 hours, we repeatedly found the species at several locations in the immediate vicinity and managed to obtain blood samples and high quality photographs.

The rediscovery of Jerdon's Babbler in Myanmar is not merely significant with respect to the regional survival of the species; Asia's avifauna is seriously 'over-lumped', with the babblers—perhaps including Jerdon's—being a particular case in point. As a sensitive grassland specialist, Jerdon's Babbler is unlikely to establish easy routes of gene flow between the three great rivers' watersheds (Indus, Ganga–Brahmaputra and Ayeyarwady). This is particularly true for the nominate population along the Ayeyarwady, which is separated from the north-east Indian race *griseigulare* by mountain ranges exceeding 1,500–2,000 m. There is a good possibility that the Myanmar population is a species distinct from the populations further west. This is a question that we are now actively investigating using genetic, morphological and bio-acoustic evidence. It is premature to make definitive statements, but preliminary evidence suggests that Myanmar's birds differ significantly from north-east Indian *griseigulare* in underpart colouration and, while their simple vocal notes (presumably alarm or contact calls) are rather similar, their complex vocalisations (presumably song) exhibit important differences.

Whether Myanmar's Jerdon's Babblers form an independent lineage or not, their survival requires urgent conservation action. Additional tiny patches of grassland may survive in unsurveyed parts of central and southern Myanmar, although extensive searches using satellite imagery give us little cause for optimism. The remaining 50 ha patch at Udo, perhaps with the addition of a buffer zone of another 50 ha, deserves urgent conservation attention. The area is also readily accessible for birdwatching tourists: it could be visited in a day from Yangon and there is a golf clubhouse, admittedly somewhat dilapidated, not far away and ready to take in undemanding clients.

Satellite imagery from 5–10 years ago suggests that the land use in the area is constantly changing, and that present-day agricultural fields along the margins may have been suitable habitat a few years ago, and vice versa. The area's designation as an experimental plot for an agricultural institution has luckily spared it from complete conversion into rice paddy, but recent years have seen the establishment of several chicken and fish farms. Such profitable new business schemes have already devoured sizeable former patches of grassland in the area. There is a clear need to secure the remaining grasslands at Udo from further conversion. The next

Plate 2. Jerdon's Babbler *Chrysomma altirostre altirostre*, Udo, Yangon region, 31 May 2014.





Plate 3. Jerdon's Babbler in the hand, Udo, Yangon region, 31 May 2014.

steps are to identify the legal owners of this area of habitat, which may be the Yangon City Development Council, and work with them to secure and potentially expand suitable habitat for the babbler. Additional studies of Jerdon's Babbler are needed to understand its specific habitat requirements and if these change during the course of the year, particularly in the wet season when much of the area is flooded. If there are individual owners who have bought or been given areas of tall grass for cultivation or other development, a system for conservation agriculture could be developed. This would provide financial incentives to avoid the destruction of remaining habitat. Without immediate action, Myanmar's Jerdon's Babblers may yet disappear for a third time, and this time for good!

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