

DISCOVERY

The discovery of Large-billed Reed Warblers *Acrocephalus orinus* in north-eastern Afghanistan

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The publication of Svensson *et al.* (2008) dramatically changed ornithological perception of the Large-billed Reed Warbler *Acrocephalus orinus* from a cryptic, essentially unknown species to one of a long-distant migrant, albeit still enigmatic, with a postulated range stretching from south-western Central Asia to northern South-East Asia. Following fieldwork in north-eastern Afghanistan in the summers of 2008 and 2009 we can now add further clarifications concerning the breeding range and habitats of the species. A full analysis of the discovery will be submitted to the next edition of *Forktail*.

In June 2008 RJT was carrying out a conservation assessment of the breeding bird communities of the Wakhan region of Badakshan

province, north-eastern Afghanistan, for the Wildlife Conservation Society (WCS) Afghanistan Program with funding from USAID. Badakshan lies in the westernmost outliers of the Greater Himalayan range (the region lies at the junction of three main ranges: the Pamirs to the north, the Hindu Kush to the south-west and the Karakoram to the south-east). The Wakhan Corridor forms a tongue of land over 300 km long stretching up into the high Himalayas, sandwiched between Tajikistan, Pakistan and China. The Wakhan is characterised by a number of high-altitude, typically arid habitats, with its lowest (westernmost) point being just below 3,000 m.

On 3 June 2008, early in the survey, RJT ventured into riparian bushlands near the village of Goz Khun, where the Wakhan and Pamir rivers

Plate 1. Large-billed Reed Warbler *Acrocephalus orinus* in hand, Zebak, 14 June 2009.



meet to form the Amu Darya (local name Panj) River. Almost immediately a singing *Acrocephalus* reed warbler was found. Not familiar with the region's avifauna, he took notes and made recordings of the song. One of the more memorable initial impressions of the sighting was the length of the bill, which appeared especially long. Other observed features included a rather plain, unmarked face except for a paler area from the lore to the eye, a white throat, short primary projection and a largely yellowish lower mandible. RJT wandered through the mosaic of riparian thickets for just over two hours that morning and at least another 12 individual reed warblers (presumed to be the same species) were either seen or heard singing, making it the second commonest species (after Mountain Chiffchaff *Phylloscopus sindianus*) recorded in the habitat.

As experienced observers know, field observations and book descriptions (even the best) are not always harmonious, and using Rasmussen & Anderton (2005) RJT mentally characterised the birds as probably Blyth's Reed Warbler *Acrocephalus dumetorum*, a species unfamiliar to him, but that he should check further. The possibility of Large-billed Reed Warbler *Acrocephalus orinus* seemed too unlikely to take seriously. Unbeknown to him,

however, in the summer of 1937 W. N. Koelz had collected two Large-billed Reed Warblers at Zebak (Figure 1), a locality close to the western end of the Wakhan valley, and another two specimens elsewhere in north-eastern Afghanistan, while earlier still in August 1879 Colonel John Biddulph had collected a specimen just across the border peaks at Gilgit, northern Pakistan (Svensson *et al.* 2008). All five of these specimens had, however, never been correctly identified.

Later on 3 June 2008 the survey moved higher up the Wakhan into different habitats and no further reed warblers were recorded. RJT subsequently travelled to the Natural History Museum at Tring in order to examine skins for clarification of various field observations made during the survey. There a discussion with Robert Prys-Jones, head of the Bird Group and a co-author of Svensson *et al.* (2008), highlighted the potentially exciting possibility that the reed warblers seen in the Wakhan might perhaps be something other than Blyth's. Contact was established with LS and parts of the recorded song were exchanged. When LS received the recording he immediately strongly suspected that it was the first ever recording of Large-billed Reed Warbler, not only due to the fact that he knew all other reed warbler songs except

Figure 1. Wakhan corridor, Afghanistan, showing the localities where Large-billed Reed Warblers were trapped in 2009.



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Plate 2. Large-billed Reed Warbler *Acrocephalus orinus* in net, Goz Khun, 3 June 2009.

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Plate 3. Hafizullah at work, Goz Khun, 3 June 2009.

Blunt-winged *Acrocephalus concinens* and Large-billed, but mainly because it so much resembled the song of Blyth's without being it. This exciting news was passed on to WCS in order to try and more thoroughly examine the reed warblers of the area in the following summer.

Between 1–10 June 2009 AMR, HN and NM, three research assistants of the WCS Afghanistan Program trained by SO, returned to the Wakhan and deployed mist-nets in riverine thickets in three different localities close to Goz Khun and the nearby villages of Pukuj and Pak (Figure 1). Using playback from RJT's 2008 edited recordings, they successfully caught 15 reed warblers. All were measured and photographed and from each individual two external rectrix feathers were removed for future molecular analysis. NM then travelled to Zebak, a village located outside the Wakhan valley, between the towns of Ishkeshim and Boharak in central Badakhshan. Between 14–16 June 2009 NM deployed mist-nets in a forested riverside area and captured four more reed warblers. On 25 June 2009 AMR and HN returned to Goz Khun and tried again to trap reed warblers in exactly the same location where they had captured specimens on 3 June. They failed but saw one unidentified reed warbler with food items in its bill.

In August all the feather samples, measurements and photographs were forwarded to LS who immediately identified Large-billed Reed Warbler from the photographs and biometrics. Then in September 2009 came the exciting news that UO had confirmed the identification through obtaining DNA sequences and comparing this to previously published DNA data. The genetic diversity was surprisingly high. Representatives of all three haplotype groups demonstrated by Svensson *et al.* (2008) were collected in Goz Khun alone. The existence of three such distinct haplotype groups indicates that the species has undergone a period when subpopulations evolved in separation. The current presence of all three groups in a single locality could be a result of a collapse of this separation, perhaps due to shrinking of the former range.

The main Wakhan Corridor is a narrow strip of riverine terrace along the banks of the Amu Darya River, flanked in the south by the Hindu Kush mountain range and dissected by many stony fans and flood washes originating from this range. Along the river, on both sides, there are cultivated lands that yield crops of wheat, barley, different peas and small garden plots of potatoes. Along this strip there are also boggy sedge and grass pastures used by villages for common grazing. Yet on the Afghan side (south bank of the river) the wettest ground is still covered by a fringe of scrubby bushland that can be locally extensive and dense, such as in Goz Khun where the confluence of the Wakhan and Pamir rivers forms a delta. In the Wakhan this ecosystem seems to be the preferred habitat of Large-billed Reed Warbler.

This riparian habitat is an oasis for more than 50 species of resident and migratory birds. In June, Large-billed and Blyth's Reed Warblers share the lower and mid-strata of the scrub with a number of other species including Bluethroat *Luscinia svecica*, Cetti's Bush Warbler *Cettia cetti*, Mountain Chiffchaff, Greenish Warbler *Phylloscopus trochiloides* and Hume's Lesser Whitethroat *Sylvia curruca althaea*. The habitat is also a riverside corridor for a variety of mammals, such as Common Otter *Lutra lutra*, Cape Hare *Lepus capensis*, Stone Marten *Martes foina* and Grey Wolf *Canis lupus*. In autumn the sea buckthorn *Hippophae* thickets are laden with deep orange berries which provide excellent forage to a number of migratory bird species and allegedly, along the Pamir River, to Brown Bear *Ursus arctos*.

The area where the birds occur is remote and reaching it requires many days travel. This is made more complicated by the serious and changing security situation in Afghanistan; indeed when AMR and HN first travelled to the area in 2009

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Plate 4. Ali Madad at work, Goz Khun, 7 June 2009.

Plate 5. Large-billed Reed Warbler *Acrocephalus orinus* in hand, Goz Khun, 8 June 2009.



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part of the route was deemed insecure due to tribal rivalries. Fortunately passerine birds are not trapped or hunted by local people in the Wakhan, and the main threat to the Large-billed Reed Warbler in the area appears to be habitat loss. Villagers both cut fuelwood from the riverine scrub and clear land for conversion to agriculture and livestock grazing. When investigating potential habitats for Large-billed Reed Warbler on the Tajikistan side of the upper course of the Amu Darya River in September 2009, SO noticed that riparian scrubby bushland was largely non-existent or very impoverished on the riverbanks. It is likely that decades of human use and conversion have significantly reduced this riparian ecosystem in Tajikistan in contrast to the Afghan side of the river.

Protection of this threatened ecosystem in Afghanistan, possibly one of the principal breeding habitats for Large-billed Reed Warbler, is a matter of urgency. Conservation measures will have to consider both the development of alternative fuel resources for local inhabitants and the improvement of the existing cultivated lands as an alternative to the current destruction of riparian bushland. However, much of the conservation outlook for the species depends on the broadness (or lack thereof) of its altitudinal and habitat dependence across its yet-to-be-defined potential Western Himalayan range.

References

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