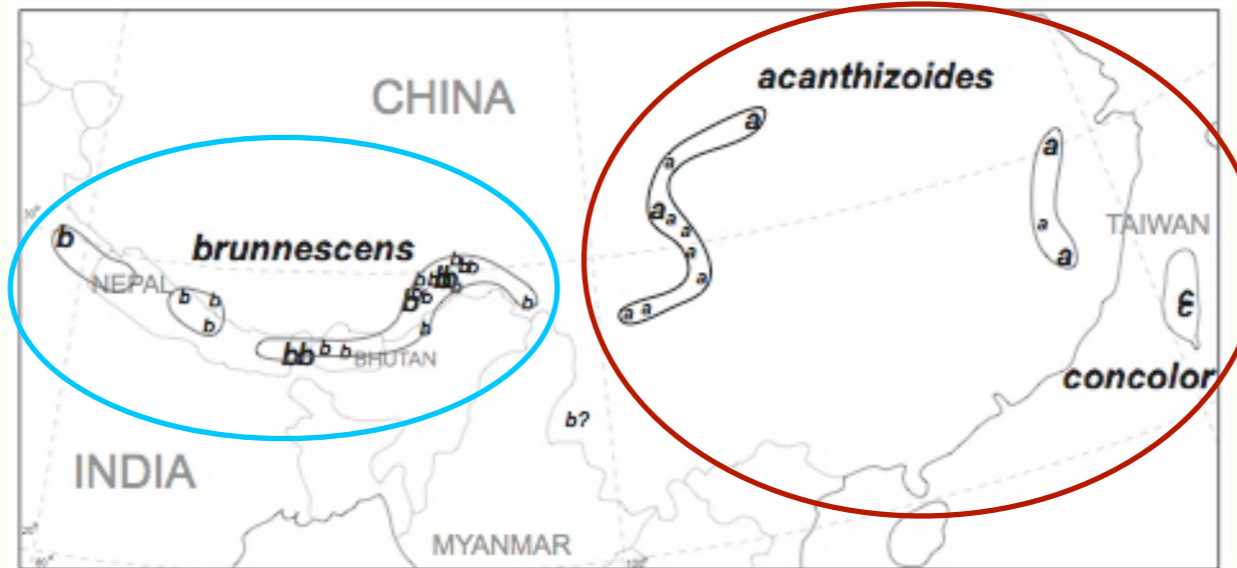


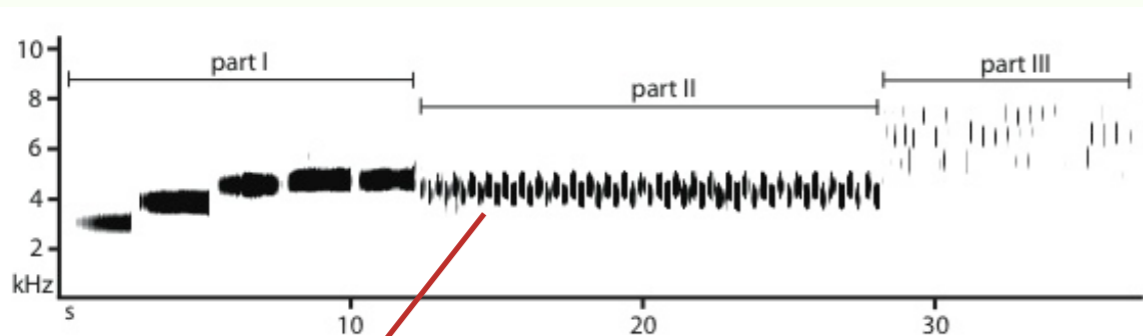
“Yellowish-bellied Bush Warblers”

Very similar plumages • very different songs

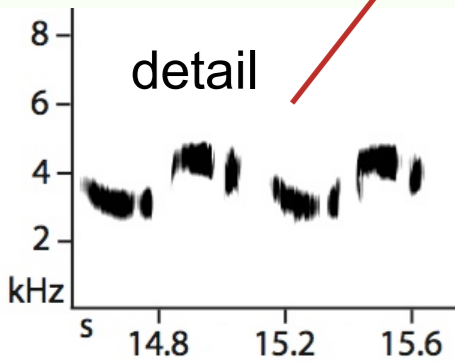
C. brunnescens



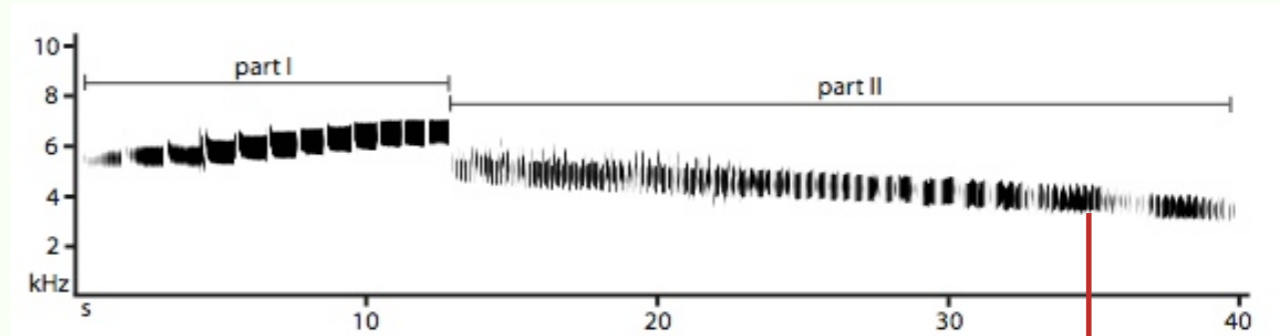
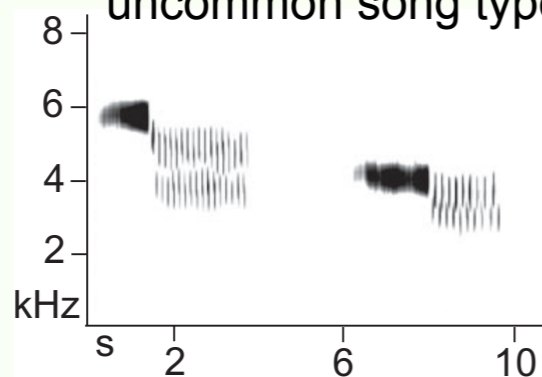
C. acanthizoides



one song strophe

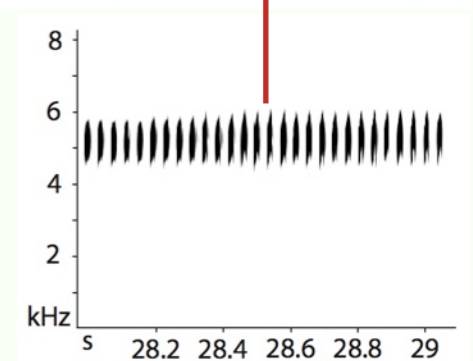


Two strophes of uncommon song type



one song strophe

detail



Alström et al. 2007. *Zoological Journal of the Linnean Society* 149: 437–452

“Yellowish-bellied Bush Warblers” – two distinct species

The Yellowish-bellied Bush Warbler *Cettia acanthizoides* used to be treated as a species with a wide distribution in the Himalayas (subspecies *brunnescens*) and mountains of C and E China (subspecies *acanthizoides*) and Taiwan (subspecies *concolor*). We showed, using morphological, vocal and genetic data, that the taxon *brunnescens* is better treated as a separate species, Hume’s Bush Warbler *Cettia brunnescens*.

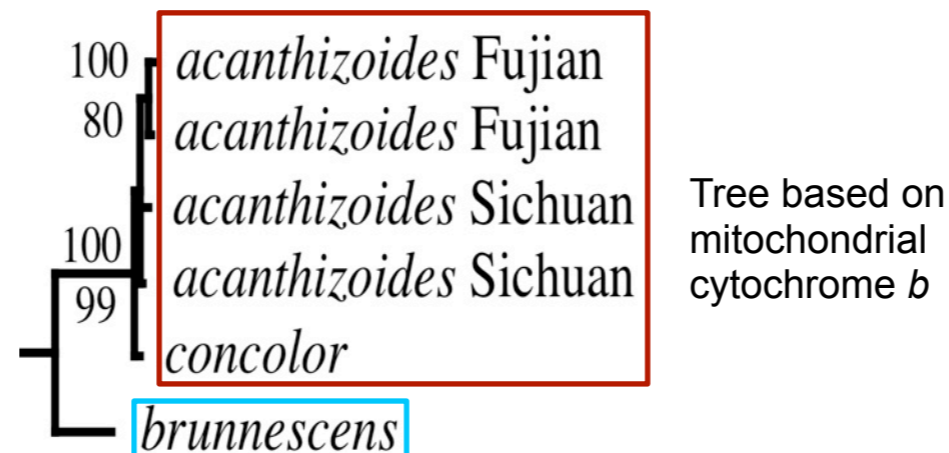
We studied all three taxa on their respective breeding grounds, and recorded songs and calls. DNA samples were collected from all taxa. We also examined morphological characters in three large museum collections.

The degree of morphological, vocal, and genetic differentiation was found to be variably congruent among all taxa; the recently separated *acanthizoides* and *concolor* differ slightly in plumage and structure but are indistinguishable in vocalizations, whereas the earlier diverged *brunnescens* and *acanthizoides/concolor* differ only slightly more in morphology but to a much greater degree in vocalizations.

The differences in song between *brunnescens* and *acanthizoides/concolor* are pronounced. The song of *brunnescens* is somewhat variable. The most commonly sung strophe consists of two parts, but sometimes a third part is added at the end (see sonogram). The latter can sometimes be given on its own. Less frequently, a different, much shorter and simpler song type is given (see sonogram). In contrast, *acanthizoides* and *concolor* only have one song type.

The call of *brunnescens* is lower-pitched than the calls of *acanthizoides/brunnescens* (latter inseparable).

We stress the essential nature of taxonomic revisions as a prerequisite for the biodiversity estimates required for conservation planning.



Alström, P., Olsson, U., Rasmussen, P.C., Yao, C-t, Ericson, P.G.P. & Sundberg, P. 2007. Morphological, vocal and genetic divergence in the *Cettia acanthizoides* complex (Aves: Cettiidae). *Zoological Journal of the Linnean Society* 149: 437–452.