

Identification of Tickell's and Buff-throated Warblers

Per Alström & Urban Olsson

This paper deals with the identification of the closely related and difficult to identify Tickell's Warbler *Phylloscopus affinis* and Buff-throated Warbler *P. subaffinis* and is largely based on Alström & Olsson (1992). This subject has previously been discussed by, eg, Ticehurst (1938), Williamson (1967), King (1975), Etchécopar & Hübner (1983) and Meyer de Schauensee (1984).

Tickell's and Buff-throated Warblers have variously been treated as separate species (eg, Ticehurst 1938, Vaurie 1959, Cheng 1987) or as conspecific (eg, Williamson 1967, Watson et al 1986, Howard & Moore 1991, Sibley & Monroe 1991). We have presented evidence supporting the view that they should be considered separate species (Alström & Olsson 1992).

Tickell's breeds from Pakistan and Kashmir, India, eastwards along the Himalayas to Yunnan province, China, and from there northwards to Qinghai province, China. It winters chiefly on the Indian subcontinent. Buff-throated breeds in China, from Yunnan and Sichuan provinces eastwards to Fujian province and winters in southern China and adjacent parts of Burma, Thailand and Indochina. The subspecies *P. s. arcanus* of Buff-throated is said to occur in Nepal but *arcanus* is in fact synonymous with Aberrant Bush Warbler *Cettia flavolivacea flavolivacea* (Alström et al 1993). Accordingly, the two species are partly sympatric, with breeding ranges overlapping in a large area in China, covering parts of Gansu, Sichuan and Yunnan provinces.

During the breeding season, Tickell's usually occurs at higher altitude than Buff-throated, although there is a broad overlap.

Identification

Tickell's and Buff-throated Warblers are both grey-brown above, with a more or less obvious greenish tinge, and yellowish-tinged below. They have fairly distinct yellowish-tinged supercilia but lack wing-bars. Both species are chiefly found in low vegetation, although at least Tickell's has occasionally been observed in winter in the canopy of rather tall trees.

Tickell's and Buff-throated are very similar, and no single morphological character is diagnostic. However, there are differences in structure, head pattern, colour of underparts and bill pattern, which, taken together, give each species a characteristic appearance. Moreover, the calls and songs differ significantly.

Size and shape

Tickell's Warbler is slightly larger and heavier than Buff-throated Warbler and has a proportionately shorter tail, giving it a more front-heavy appearance. With experience, this is often quite obvious in the field. In the hand, the proportionately shorter tail of Tickell's is evident from the wing/tail ratio which in Tickell's is in the range of 1.22-1.44 (mean 1.34) in males and 1.16-1.41 (mean 1.33) in females, whereas in Buff-throated it is 1.11-1.29 (mean 1.18) in males and 1.09-1.29 (mean 1.17) in females (maximum wing length; Svensson 1992).

Plumage

The supercilium of Tickell's Warbler generally looks more prominent and, especially in front of the eye, more well defined and often more bulging than in Buff-throated Warbler, and is on average slightly longer. The colour of the supercilium is a cleaner, clearer yellow in Tickell's than in Buff-throated. Moreover, in Tickell's the supercilium often becomes paler, sometimes almost whitish, towards the rear, whereas in Buff-throated the supercilium is generally more uniformly coloured. Tickell's frequently shows a faint darker line above the supercilium, which is only rarely present in Buff-throated.

The eye-stripe of Tickell's is usually more well defined and contrasts more clearly with paler and more yellowish ear-coverts than in Buff-throated. Normally, Buff-throated has rather dusky ear-coverts and, consequently, an indistinct eye-stripe, but the latter may be quite well defined and similar to that of Tickell's. The loreal stripe tends to be narrower in Tickell's than in Buff-throated.

The underparts are more lemon-yellow, less

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buffish in Tickell's than in Buff-throated. However, Tickell's often shows a distinct brownish hue to the breast and, particularly, the flanks, but still the belly is more lemon-yellow than in Buff-throated. The colour of the upperparts is very similar in the two species and is usually of no importance for identification. However, in fresh plumage, Tickell's is sometimes clearly brighter green above than Buff-throated.

Bare parts

Tickell's Warbler has little or no dark at the tip of the lower mandible, whereas in Buff-throated Warbler the tip of the lower mandible is extensively dark. There is, however, a slight overlap. The legs are on average somewhat paler in Tickell's than in Buff-throated but can be identical in the two species.

Vocalizations

The song of Tickell's Warbler is a short, quick series of soft notes, almost invariably preceded by a call note: *chep-chi-chi-chi-chi*. The speed varies to some extent, but is typically rather rapid; often the song has an almost explosive character. The number of *chi*-notes is also somewhat variable, normally 5-6, sometimes 8-10 (when fast). The song of Buff-throated Warbler is clearly distinguishable from that of Tickell's. It is distinctly slower and weaker, and the voice is softer. Moreover, it does not begin with the *chep*, although sometimes with a short, subdued *trr* or *trr-trr*. A commonly heard phrase could be transcribed as *tuee-tuee-tuee-tuee-tuee*.

The call of Tickell's is a rather hard and sharp *chep* or *ch(r)ep*, somewhat reminiscent of one of the calls of House Sparrow *Passer domesticus*. There appears to be some local variation, as the usual call heard in south-west India in winter is a

softer *chüp* or *chip*. The call of Buff-throated, a soft, rather weak, *trrüp* or *trrip*, is easily separable from that of Tickell's, and resembles House Cricket *Acheta domestica*.

For sonograms of songs and calls, see Ålström & Olsson (1992).

Behaviour

When agitated during territory defence, Buff-throated Warbler frequently adopts a posture with drooping and continuously quivering wings. We have not seen this behaviour in Tickell's Warbler.

Possible confusion species

Sulphur-bellied Warbler

Tickell's Warbler can be confused with the partly sympatric Sulphur-bellied Warbler *P. griseolus* which breeds in the western Himalayas and adjacent areas and winters on the Indian subcontinent. Sulphur-bellied generally gives a darker impression than Tickell's. The upperparts of Sulphur-bellied are grey-brown, lacking the greenish tinge of Tickell's (greenish may be very difficult to discern in worn Tickell's, though). The underparts look more dingy yellow, less pale, bright and clear yellow than in Tickell's. In some Sulphur-bellieds, the underparts even look grey-buff with just a little yellow admixed, chiefly on the belly. In Sulphur-bellied, the yellow supercilium is more contrasting than in Tickell's and, usually, there is a distinct contrast between the bright yellow supercilium and the greyish-buff throat (in Tickell's, there is little difference in colour between the supercilium and the throat). Moreover, the ear-coverts are more uniformly dark in Sulphur-bellied than in Tickell's, with a much less well-marked eye-stripe than in Tick-

63 Tickell's Warbler / Himalayaboszanger *Phylloscopus affinis*, Wolong, Sichuan Province, China, June 1990 (Urban Olsson). Note indistinct dark tip to lower mandible, distinct dark stripe on ear-coverts, clear-cut, somewhat bulging supercilium in front of eye, and slightly more lemon-yellow, less buffish colour of supercilium and underparts than in Buff-throated Warbler **64** Buff-throated Warbler / Chinese Boszanger *Phylloscopus subaffinis*, Wolong, Sichuan Province, China, June 1990 (Urban Olsson) **65** Tickell's Warbler / Himalayaboszanger *Phylloscopus affinis*, Koko Nor, Qinghai Province, China, June 1987 (Urban Olsson). Very bright yellow individual – clearly more lemon yellow than any Buff-throated Warbler. Note also indistinct dark tip to lower mandible and very prominent supercilium, bulging in front of eye (dark stripe on ear-coverts unusually indistinct in this individual) **66** Buff-throated Warbler / Chinese Boszanger *Phylloscopus subaffinis*, Wolong, Sichuan Province, China, June 1990 (Urban Olsson) (not same individual as in plate 64) **67** Tickell's Warbler / Himalayaboszanger *Phylloscopus affinis* (left) and Buff-throated Warbler / Chinese Boszanger *Phylloscopus subaffinis*, Wolong, Sichuan Province, China, June 1990 (Urban Olsson). Note difference in colour of underparts and supercilium and pattern of bill and ear-coverts **68** Sulphur-bellied Warbler / Steenboszanger *Phylloscopus griseolus*, Ladakh, India, June 1983 (Urban Olsson). Compare with Tickell's Warbler and note bright yellow supercilium contrasting with dull grey-buff underparts and rather dark ear-coverts with poorly defined eye-stripe

ell's. The lower mandible is completely pale in Sulphur-bellied, whereas many Tickell's show a distinct, although small, dark tip on the lower mandible; this is, however, not an important character.

The songs and calls of Sulphur-bellied are clearly different from those of Tickell's. The song of Sulphur-bellied is slower and softer than that of Tickell's and is more reminiscent of the song of Buff-throated; it often begins with one or two call notes but never with the *chep*-note of Tickell's. The common call of Sulphur-bellied is more reminiscent of that of Radde's Warbler *P. schwarzi*. It can be transcribed as a rather subdued soft *tüpp*, often repeated in stuttering series.

The behaviour of Sulphur-bellied is very characteristic and is a good distinction from Tickell's. The species has a preference for rocks, where it often climbs about in a manner resembling a Rock Nuthatch *Sitta neumayer*. Also, when feeding in wooded areas, it is frequently seen creeping on tree trunks and branches like a nuthatch.

Yellow-streaked Warbler

Buff-throated Warbler is confusable with the partly sympatric Yellow-streaked Warbler *P. armandii* which breeds in central China and winters in southern China and adjacent countries. However, Yellow-streaked is larger and has a stronger bill and proportionately longer tail than Buff-throated. The bill tends to look paler in Yellow-streaked than in Buff-throated (as a result of the larger size of the bill and on average less dark on the tip of the lower mandible in Yellow-streaked; unlike in Buff-throated, the lower mandible is sometimes all pale in Yellow-streaked), and the legs also tend to look paler in Yellow-streaked. The supercilium of Yellow-streaked is buffish in front of the eye and paler above and behind the eye, while it is more uniformly buffish in Buff-throated. Moreover, the supercilium is generally longer and more prominent in Yellow-streaked, and the eye-stripe is usually better defined than in Buff-throated. Often there is also a diffuse narrow darker lateral crown-stripe in Yellow-streaked, lacking in Buff-throated. Yellow-streaked shows a more contrastingly pale throat and generally more contrastingly buffish undertail-coverts than Buff-throated, and as a whole, the underparts tend to be paler and less yellowish than in Buff-throated. At close range, it is apparent that the underside of Yellow-streaked is streaked with yellow rather than more uniformly buffish as in Buff-throated.

Vocalizations differ clearly between these two

species. The song of Yellow-streaked is faster and more varied than that of Buff-throated and also includes fast trills unlike Buff-throated; it resembles a high-pitched Radde's. The call of Yellow-streaked is a sharp *zick* or *zück*, very unlike that of Buff-throated (for sonagrams of song and call of Yellow-streaked Warbler, see Scharringa 1984).

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Samenvatting

HERKENNING VAN HIMALAYABOSZANGER EN CHINESE BOSZANGER. In dit artikel wordt de herkenning besproken van Himalayaboszanger *Phylloscopus affinis* en Chinese Boszanger *P. subaffinis*. Beide soorten werden in het verleden ook wel als conspecifiek beschouwd. De Himalayaboszanger broedt van Pakistan oostwaarts via de Himalaya tot Yunnan, China, en van daar noordwaarts tot Qinghai, China, en overwintert voornamelijk op het Indiase subcontinent. De Chinese Boszanger broedt in China, van Yunnan en Sechwan oostwaarts tot Fujian, en overwintert in Zuid-China en aangrenzende delen van Birma, Thailand en Indochina. Beide soorten hebben grijsbruine bovendelen met een min of meer groenige waas, geen vleugelstrepen, geelachtige onderdelen en een vrij opvallende geelachtige wenkbrauwstreep. Hoewel beide soorten veel op elkaar lijken zijn er enkele kenmerken die, samen genomen, beide soorten een karakteristiek uiterlijk geven: structuur, koppatroon, kleur van de onderdelen en snavelpatroon. Bovendien zijn er duidelijke verschillen in roep en zang.

Himalayaboszanger is iets groter en zwaarder dan Chinese Boszanger en heeft een relatief kortere staart, waardoor het zwaartepunt van de vogel aan de voorkant lijkt te liggen. In de hand komt dit tot uiting in de grotere vleugel/staart ratio van Himalayaboszanger.

De wenkbrauwstreep van Himalayaboszanger is opvallender, gemiddeld iets langer, meestal duidelijker begrensd (vooral vóór het oog) en helderder en zuiverder geel dan bij Chinese Boszanger; naar achter wordt de wenkbrauwstreep meestal bleker, bijna witachtig (meestal eenkleurig bij Chinese Boszanger); Himalayaboszanger vertoont bovendien een vage donkere lijn boven de wenkbrauwstreep (zelden bij Chinese Boszanger). De oogstreep van Himalayaboszanger is meestal duidelijker en contrasteert meer met de geel-



69 Yellow-streaked Warbler / Père Davids' Boszanger *Phylloscopus armandii*, Hebei Province, China, May 1992 (Urban Olsson). Compare with Buff-throated Warbler and note heavier, paler bill, distinctly bi-

coloured supercilium, more distinct dark eye-stripe and whiter throat **70** Tickell's Warbler / Himalayaboszanger *Phylloscopus affinis*, Koko Nor, Qinghai Province, China, May 1990 (Pekka J Nikander). Note bright lemon-yellow, prominent supercilium, distinct dark eye-stripe, faint dark smudge on tip of lower mandible and rather front-heavy, short-tailed appearance **71** Buff-throated Warbler / Chinese Boszanger *Phylloscopus subaffinis*, Emei Shan, Sichuan Province, China, May 1992 (Urban Olsson) **72** Sulphur-bellied Warbler / Steenboszanger *Phylloscopus griseolus*, Rajahstan, India, February 1993 (Anders Paulsrud). Compare with Tickell's Warbler and note bright yellow supercilium contrasting with dull grey-buff underparts and more poorly defined eye-stripe **73** Yellow-streaked Warbler / Père Davids' Boszanger *Phylloscopus armandii*, Badaling, Hebei province, China, 20 May 1993 (Göran Ekström). Compare with Buff-throated Warbler and note especially supercilium (more buffish in front of eye than behind), faint dark lateral crown-stripe and contrastingly whitish throat. Underparts of this individual less yellowish than in normal Buff-throated Warbler.

achtige oorstreek dan bij Chinese Boszanger, die een donkerdere oorstreek heeft. De teugelstreep is bij Himalayaboszanger smaller dan bij Chinese Boszanger.

De onderdelen van Himalayaboszanger zijn meer citroengeel, minder bruingeel, dan bij Chinese Boszanger, echter wel vaak met een bruinachtige waas op borst en flanken; de buik is dan nog steeds meer citroengeel.

Hoewel er enige overlap is, heeft Himalayaboszanger weinig tot geen donker op de punt van de ondersnavel; Chinese Boszanger heeft een uitgebreide hoeveelheid donker op de ondersnavel.

Himalayaboszanger kan mogelijk verward worden met de gedeeltelijk sympatrisch voorkomende Steenboszanger *P. griseolus*, en Chinese Boszanger met de daarmee gedeeltelijk sympatrisch voorkomende Père Davids' Boszanger *P. armandii*. De gele wenkbrauwstreep van Steenboszanger is opvallender en contrasteert duidelijk met de grijs-geelbruine keel (weinig contrast bij Himalayaboszanger); bovendien is de oorstreek vrijwel egaal donker waardoor de oogstreep minder opvalt dan bij Himalayaboszanger. Steenboszanger is op de bovendelen grijsbruin en mist de groene waas van een (ongesleten) Himalayaboszanger. De onderdelen zijn minder helder geel, meer grijsachtig geelbruin. Naast duidelijke verschillen in roep en zang is er ook een verschil in gedrag: Steenboszanger is vaak op rotsen en boomstronken te vinden, in gedrag enigszins lijkend op een Rotsklever *Sitta neumayer*.

Père Davids' Boszanger is groter dan Chinese Boszanger met een stevigere snavel en langere staart. De wenkbrauwstreep is geelbruin vóór, en lichter boven en achter het oog (egaal geelbruin bij Chinese Boszanger) en is langer; de oogstreep is duidelijker begrensd. Père Davids' Boszanger heeft een lichte keel, contrasterende geelbruine onderstaartdekveren en lichtere, minder geelachtige onderdelen; van dichtbij zijn

gele streepjes op de lichte onderdelen zichtbaar (egaal geelbruin in Chinese Boszanger).

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Per Alström, Kungsgatan 3, 462 33 Vänersborg, Sweden
Urban Olsson, University of Göteborg, Department of Zoology, Section of
Morphology and Systematics, Medicinaregatan 18, 413 90 Göteborg, Sweden