

The generic taxonomy of parrotbills (Aves, Timaliidae)

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The parrotbills are typically considered to contain just three genera: *Conostoma*, *Paradoxornis* and *Panurus*. Discounting *Panurus* from consideration (it has recently been shown to have a distant relationship to the babblers), we maintain a single species in *Conostoma*, *C. aemodium*, and assign the species currently lumped into *Paradoxornis* among seven genera that fall into two groups based in part on size: the first group (which also includes *Conostoma*) consists of *Hemirhynchus* (for *paradoxus* and *unicolor*); *Psittiparus* (for *gularis*, *margaritae*, *ruficeps* and *bakeri*) and *Paradoxornis* (for *flaviviridis*, *guttaticollis* and *heudei*); the second comprises *Chleuasicus* (for *atrosuperciliaris*), a new genus *Sinosuthora* (for *brunnea*, *webbiana*, *alphonsiana*, *conspicillata*, *zappeyi* and *przewalskii*), *Neosuthora* (for *davidiana*) and *Suthora* (for *fulvifrons*, *verreauxi*, *nipalensis*, *humii*, *poliatis*, *ripponi* and *beaulieui*).

INTRODUCTION

Earlier accounts of the parrotbills, such as Sharpe (1883), Hartert (1907), Hartert and Steinbacher (1932–38), and Baker (1930), treated them in multiple genera, but in recent works (Deignan 1964, Dickinson 2003, Robson 2007) the great majority have been placed in *Paradoxornis*. This arrangement goes back to Delacour (1946), who assigned all taxa except Great Parrotbill *Conostoma aemodium* and Bearded Reedling *Panurus biarmicus* to *Paradoxornis*. His explanation for this radical move was brief, and roughly translates as follows:

The vast genus *Paradoxornis* (*Suthora*, *Psittiparus*, *Neosuthora* and *Cholornis* are synonyms) includes very variable height and form of which the beak varies a great deal in height and power. The case of *P. paradoxus* of Gansu is extraordinary; this bird is almost identical to *P. unicolor* of the Himalayas and of Yunnan, but it lacks one toe on its claw; these are assuredly very close forms, almost conspecific. The small species such as *P. fulvifrons*, *P. nipalensis*, *P. verreauxi* resemble the tits with long tails (*Aegithalos*) and probably constitute a transition between the tits and the babblers.

It is remarkable that so drastic a revision should have been accepted with so little justification. Deignan (1964) followed suit without any discussion. However, just as the lumping of almost all laughingthrushes into the genus *Garrulax* has recently been seen as excessive (Rasmussen & Anderton 2005, Collar & Robson 2007), so the lumping of almost all parrotbills into *Paradoxornis* also seems now to be in need of reconsideration.

Yeung *et al.* (2006), basing their molecular analysis on a combination of mitochondrial genes cytochrome-*b* and ND2 for a total of 2,184 base pairs, showed that the genus *Paradoxornis* (as most recently recognised) is paraphyletic. In particular, *Conostoma* is embedded in the middle of the genus *Paradoxornis*. Their analysis clearly supports a return to a polygeneric arrangement of the parrotbills. Here we use evidence from morphology, calls and songs to reinforce the view that a return to something like the earlier multiple-genera treatments of parrotbills is desirable. We also discuss some generic names proposed recently which are invalid, with notes on recent splits and possible further splits. However, we exclude the genus *Panurus*. Molecular evidence demonstrates that *Panurus biarmicus* has a more distant relationship to other parrotbills than was previously thought, and appears to have a closer relationship to non-babbler species (Ericson and Johansson 2003, Alström *et al.* 2006, Jønsson and Fjeldså 2006). Consequently its common name should revert to Bearded Reedling, in order

to reflect this distant relationship. We will go through the genera we propose, giving the full citation for the generic name, plus synonyms, and listing the species we assign to each genus, and its subspecies, with detailed distribution provided for both monotypic species and subspecies.

THE GENERA AND SPECIES

Conostoma Hodgson, 1842

Conostoma Hodgson, 1842 [‘1841’], *Journal of the Asiatic Society of Bengal* 10: 856. Type, by monotypy, *Conostoma aemodius* Hodgson, 1842. Synonyms: *Enendrozdvoma* Kashin, 1978.

- *Conostoma aemodium* Hodgson, 1842 **Great Parrotbill**. India (Himalayas from Uttarkhand to Arunachal Pradesh); Nepal; Bhutan; south Tibet; north Myanmar; China (south Gansu, south Shaanxi, Sichuan, north-west Yunnan).

The sole member of the genus *Conostoma* is much larger than the other parrotbills (27.5–28.5 cm; 88–110 g), and has a less graduated tail. The outermost pair of retrices is about three-quarters of the total length of the tail. The bill is longer than it is high, and is proportionately much longer than those of other parrotbills. Both males and females are grey-brown, with a whitish forehead. This assignment is consistent with the treatments of Sharpe (1883), Hartert (1907, 1932–38) and Deignan (1964).

Hemirhynchus Hodgson, 1843

Hemirhynchus Hodgson, 1843, *Journal of the Asiatic Society of Bengal* 12: 1007. New name for *Heteromorpha* Hodgson, 1843, hence the type is *Heteromorpha unicolor* Hodgson, 1843. Synonyms: *Heteromorpha* Hodgson, 1843, not *Heteromorpha* Heubner, 1822 (Lepidoptera); *Cholornis* J. Verreaux, 1870.

- *Hemirhynchus paradoxus* (J. Verreaux, 1870) **Three-toed Parrotbill**.
H. p. paradoxus. China (south Gansu, south-east Shaanxi [Daba Shan], west-central, north and north-east Sichuan).
H. p. taipaiensis (Cheng, Lo and Chao, 1973). China (south Shaanxi [Qinling Shan]).
- *Hemirhynchus unicolor* (Hodgson, 1843) **Brown Parrotbill**. West-central to east Nepal; India (Himalayas of West Bengal, Sikkim and Arunachal Pradesh); Bhutan; south-east Tibet; north Myanmar; China (west-central to south-west Sichuan, north-western Yunnan).
These two very similar species range in length from 20–21 cm and weigh 31.5–39 g. They are similar in size

to the species discussed in relation to *Paradoxornis sensu stricto* below, but their overall plumage more closely resembles that of Great Parrotbill. Their voices also differ from those of species placed in *Paradoxornis sensu stricto*, and their songs resemble those of the Great Parrotbill, consisting of rather loud, clear, relatively phrased songs, comprising usually up to four notes; in contrast, their call notes differ from those of Great, consisting of guttural calls, short shrill whining sounds and harsh crackling notes. The species *paradoxus* was assigned to *Cholornis* in Sharpe (1883) and Hartert (1907, 1932–1938)—evidently in ignorance of the priority of *Hemirhynchus*—while both authors plus Baker (1930) assigned *unicolor* to *Suthora*.

Yeung *et al.* (2006) used the generic name *Heteromorpha* for this group in a figure in their presentation labelled ‘Congruence between molecular phylogeny and Robson’s taxonomy’. However, as noted above, this name is preoccupied.

Psittiparus Hellmayr, 1903

Psittiparus Hellmayr, 1903, *Das Tierreich* Lief. 18: 163. New name for *Scaeorhynchus* Oates, 1889. Hence type is *Paradoxornis ruficeps* Blyth, 1842. Synonyms: *Scaeorhynchus* [as *Scaeorhynchus*] Oates, 1889, not *Scaeorhynchus* E. E. Wilson, 1881 (Pantopoda).

- *Psittiparus gularis* (G. R. Gray, 1845) **Grey-headed Parrotbill.**

P. g. gularis. India (Sikkim, north West Bengal, west Arunachal Pradesh); Bhutan.

P. g. transfluvialis (E. Hartert, 1900). India (central and east Arunachal Pradesh [east from Dafla Hills], south Assam, Nagaland, Manipur, Mizoram); west [north Chin Hills], north, east and south-east Myanmar; north-west Thailand; China (west and north-west Yunnan).

P. g. rarus Stresemann, 1940. West Myanmar (south Chin Hills, incl. Mt Victoria).

P. g. laotianus Delacour, 1926. Extreme east Myanmar (east of Salween R); north-west Thailand (Khun Tan Range etc.); Laos; Vietnam (west and east Tonkin, north and central Annam).

P. g. fokiensis (David, 1874). China (south-central and south-east Sichuan east to north Jiangxi, south-east Anhui, Zhejiang and north Fujian; south to north-east Guangxi and north Guangdong).

P. g. hainanus Rothschild, 1903. China (Hainan I).

- *Psittiparus margaritae* Delacour, 1927 **Black-crowned Parrotbill.** Extreme east Cambodia (south-east Mondulhiri); Vietnam (southern highlands of S Annam).

- *Psittiparus ruficeps* (Blyth, 1842) **White-breasted Parrotbill.** India (Sikkim, north West Bengal, Arunachal Pradesh [except east/south-east]); Bhutan.

- *Psittiparus bakeri* (Hartert, 1900) **Greater Rufous-headed Parrotbill.**

P. b. bakeri. India (south-east Arunachal Pradesh, south Assam, Meghalaya, Nagaland, Manipur, Mizoram); extreme north-east Bangladesh; south-east Tibet; north, east and south-east Myanmar; north Laos; China (north-west Yunnan).

P. b. magnirostris Delacour, 1927. Vietnam (east Tonkin).

Birds in this grouping are somewhat smaller in size than the previous and following groups, ranging from 15.5–19.5 cm in length, and 27–37 g in weight. With this

group, the tail is almost equal in length to the wing, and shows little graduation, with the outermost feathers about five-sixths the length of the central feathers. They have relatively well-structured songs, with those of White-breasted and Greater Rufous-headed Parrotbills being particularly varied, jolly and emphasised. All species give distinctive *joiw* and *jieu* call notes, those of White-breasted and Greater Rufous-headed being louder and more clearly audible. In addition, when alarmed, Grey-headed Parrotbill utters harsh scolding rattles like those of a scimitar-babbler *Pomatorhinus*, and White-breasted and Greater Rufous-headed Parrotbills, in a similar context, emit a highly distinctive loud, metallic, spluttering rattle. Collar (2006) provided evidence that the isolated form *margaritae* of south Indochina should be split from *P. gularis*, and this treatment was followed by Robson (2007). King and Robson (2008) provided reasons for splitting *P. bakeri* from *P. ruficeps*. Sharpe (1883) assigned both *ruficeps* and *gularis* to *Suthora*; Hartert (1907) and Baker (1930) assigned both to *Psittiparus*.

Paradoxornis Gould, 1836

Paradoxornis Gould, 1836, *Proceedings of the Zoological Society of London*, Pt. 4, no. xxxviii (May): 17. Type, by monotypy, *Paradoxornis flavirostris* Gould, 1836. Synonyms: *Bathyrhynchus* McClelland, 1837; *Anacrites* Gistel, 1848; *Calamornis* Gould, 1874.

- *Paradoxornis flavirostris* Gould, 1836 **Black-breasted Parrotbill.** India (Brahmaputra R floodplains in West Bengal, north-east Assam, and immediately adjacent areas of Arunachal Pradesh; formerly south Assam); formerly north-east Bangladesh.

- *Paradoxornis guttaticollis* David, 1871 **Spot-breasted Parrotbill.** India (extreme east Arunachal Pradesh, south Assam, Meghalaya, Nagaland, Manipur, Mizoram); east Bangladesh; west, north, east and south-east Myanmar; north-west Thailand, north Laos; Vietnam (west and east Tonkin); China (south Gansu and south Shaanxi south to west-central Sichuan and Yunnan, and east through Guizhou, north Guangxi and north Guangdong to north Fujian).

- *Paradoxornis heudei* David, 1872 **Reed Parrotbill.**

P. h. polivanovi Stepanyan, 1979. Extreme east Mongolia; China (north-east Nei Mongol and Heilongjiang); extreme south-east Russia (Lake Khankha region of Ussuriland).

P. h. heudei. China (south-east Shandong south along coast to north Zhejiang, and inland in Yangtze R system to north Jiangxi [Jiujiang area]). Populations in north and south Hebei and coastal Liaoning not yet assigned to race.

As with the species assigned to *Hemirhynchus*, this group is relatively large, with the length of the three species being 18–22 cm. Spot-breasted Parrotbill comes in at 26.5–40 g on current knowledge. Reed Parrotbill is considerably lighter, with late summer females being as little as 15.9 g (although Spot-breasted may not have been weighed at this season). All species are characterised by a strongly graduated tail, the outer feathers not more than two-thirds the total tail length. The bill is short and deep; the cutting edge of the upper mandible has a deep, S-shaped curve, and there is a corresponding curve in the lower mandible. In terms of voice, Black-breasted and Spot-breasted have songs made up of a variable series of clear, quite high staccato notes, which are very similar to

each other. The song of Reed Parrotbill is equally varied, although often consisting of more notes. Sharpe (1883) and Baker (1930) assigned *flavirostris* and *guttaticollis* to *Paradoxornis*; Hartert (1907) assigned *flavirostris* to *Cholornis* and *guttaticollis* to *Suthora*.

Stepanyan (1979) proposed that the east Mongolian population of Reed Parrotbill was worthy of subspecific recognition under the name *mongolicus*. Stepanyan (1998) raised *polivanovi* to full species status, distinct from *heudei*, with *mongolicus* as a subspecies. However, Stepanyan's theory was based on the presumed 'huge' gap between northern *polivanovi* and southern *heudei*. Since then, as noted by Robson (2007: 319), populations of Reed Parrotbills have been found in the intervening areas, and it is probable that, when a full geographical series of specimens can be examined, the differences separating the northern and southern taxa will turn out to represent no more than the end points of a cline. Such a cline would mean that *polivanovi* would at best be accorded subspecies status, if it deserved recognition at all. We follow Robson (2007) in recognising *polivanovi* as a subspecies of *heudei* and in returning *mongolicus* to the synonymy of *polivanovi*.

The four genera discussed so far form a natural group: the lengths of all species exceed 15 cm. The genera to be discussed next also form a natural group, with all taxa having total lengths of 15 cm or less.

***Chleuasicus* Blyth, 1845**

Chleuasicus Blyth, 1845, *Journal of the Asiatic Society of Bengal* 14: 578. Type, by monotypy, *Chleuasicus ruficeps* Blyth, 1845 = *Chleuasicus atrosuperciliaris* Godwin-Austen, 1877.

- *Chleuasicus atrosuperciliaris* Godwin-Austen, 1877
Lesser Rufous-headed Parrotbill.

C. a. oatesi (Sharpe, 1903). India (Sikkim, north-west Bengal, west and central Arunachal Pradesh); Bhutan.

C. a. atrosuperciliaris. India (east Arunachal Pradesh, extreme east Meghalaya, south Assam, Nagaland, Mizoram); north and south-east Myanmar; extreme north-west Thailand; north and central Laos; Vietnam (west and east Tonkin); China (west and north-west Yunnan).

Chleuasicus is monotypic, containing only Lesser Rufous-headed Parrotbill *P. atrosuperciliaris* Godwin-Austen, 1877. This medium-sized (15 cm) parrotbill has a noticeably peaked crown and rather short, deep-based bill. Possible songs are a series of sharp chipping notes, rapidly repeated at varying speeds after variable but short intervals.

Sharpe (1883: 494) treated *atrosuperciliaris* as a synonym of *Chleuasicus ruficeps* Blyth, 1845, but Deignan (1964: 439) treated the latter as preoccupied, by secondary homonymy (International Code on Zoological Nomenclature, Art.57.2, 1999: 59), by *Paradoxornis ruficeps* Blyth, 1845. With the allocation of *ruficeps* to *Psittiparus*, however, the secondary homonymy is removed, but since the replacement of *ruficeps* by *atrosuperciliaris* occurred prior to 1961 (for example in Delacour 1946: 26), and since *atrosuperciliaris* has been in consistent use since 1961 (e.g. Deignan 1964: 439, Dickinson 2003: 624), *ruficeps* must be considered permanently invalid (ICZN Art.59.3). Baker (1930) assigned *atrosuperciliaris*, as a subspecies of *ruficeps*, to *Suthora*.

***Sinosuthora* Penhallurick & Robson, 2009**

Sinosuthora Penhallurick & Robson, 2009. Type, by original designation, *Suthora conspicillata* A. David, 1871.

Yeung *et al.* (2006) in their presentation used the generic name *Suthora* Hodgson, 1837 for this group, and *Temnoris* Hodgson, 1841 for the group which we place in *Suthora* below. The type of *Suthora* Hodgson (1837) *Indian Review* 2: 32, is, by monotypy, *Suthora nipalensis* Hodgson, 1837. *Temnoris* Hodgson, 1841 is a new name for *Suthora*, with the same type species. Thus the species assigned to *Temnoris* by Yeung *et al.* (2006), namely *fulvifrons*, *nipalensis*, and *verreauxi*, should correctly be placed in *Suthora* Hodgson, 1837. This raises the question of what generic name is available for the species incorrectly placed in *Suthora* by Yeung *et al.*, namely *brunnea*, *webbiana*, *alphonsiana*, *conspicillata*, *zappeyi* and *przewalskii*. As far as can be determined, there is no available generic or subgeneric name associated with any of these taxa. Accordingly, a new generic name is proposed:

***Sinosuthora* new genus**

Diagnosis: small parrotbills 11–15 cm in length. Relatively plain in coloration, with brown to rufous-chestnut-fringed wings; all lack pronounced lateral crown-stripes. Type: *Suthora conspicillata* A. David, 1871. Gender: feminine.

- *Sinosuthora brunnea* (Anderson, 1871) **Brown-winged Parrotbill.**

S. b. brunnea. North-eastern Myanmar; China (west and north-west Yunnan [west of Lijiang Range and Lake Er Hai]).

S. b. styani (Rippon, 1903). China (north-west Yunnan [Dali Region]).

S. b. ricketti (Rothschild, 1922). China (south-west Sichuan [from Yalong Jiang] to north-west Yunnan [Lijiang region and area east of Lake Er Hai]).

- *Sinosuthora webbiana* (Gould, 1852) **Vinous-throated Parrotbill.**

S. w. mantschurica (Taczanowski, 1885). Extreme south-east Russia (south Ussuriland); China (east Heilongjiang south to north-east Hebei).

S. w. fulvicauda (Campbell, 1892). China (south-east Nei Monggol [north of Beijing] south to extreme north Henan); North Korea; South Korea.

S. w. suffusa (Swinhoe, 1871). China (south Gansu, south Shaanxi, central and east Sichuan, east Guizhou and Guangxi, east to south Shanxi, inland south Jiangsu, Fujian and Guangdong); Vietnam (north-west part of east Tonkin).

S. w. webbiana. China (coastal Jiangsu and north Zhejiang).

S. w. elisabethae (La Touche, 1922). China (south-east Yunnan); Vietnam (north part of east Tonkin).

S. w. bulomacha (Swinhoe, 1866). Taiwan.

- *Sinosuthora alphonsiana* (J. Verreaux, 1870) **Ashy-throated Parrotbill.**

S. a. alphonsiana. China (central and south-central Sichuan).

S. a. ganluoensis (Li and Zhang, 1980). China (Ganluo region of south-central Sichuan).

S. a. stresemanni (Yen Kwokyung, 1934). China (Guizhou and adjacent south-east Sichuan).

S. a. yunnanensis (La Touche, 1921). China (south-east Yunnan); Vietnam (northern west Tonkin). Introduced birds in Italy (north Lombardy) may represent an undescribed race.

- *Sinosuthora conspicillata* (David, 1871) **Spectacled Parrotbill**.
S. c. conspicillata. China (east Qinghai, south Gansu, north-central and north-east Sichuan).
S. c. rocki (Bangs and Peters, 1928). China (west Hubei).
- *Sinosuthora zappeyi* (Thayer and Bangs, 1912) **Grey-hooded Parrotbill**.
S. z. zappeyi. China (south-central Sichuan [excluding Erlang Shan]).
S. z. erlangshanicus (Cheng, Li and Zhang, 1983). China (south-central Sichuan [Erlang Shan]).
- *Sinosuthora przewalskii* (Berezowski and Bianchi, 1891) **Rusty-throated Parrotbill**. China (south Gansu, extreme north Sichuan).

These are relatively small, small-billed and long-tailed parrotbills with a length of 11–15 cm and weight of 6–13 g. The songs of the species that are known are similar, consisting of series of 2–5 quickly delivered, thin, high, often piercing notes, in some species preceded by weak introductory notes. As with *Suthora* below, they climb in a tit-like fashion, bounce between perches and frequently hang upside-down.

Looking at the species within *Sinosuthora*, *brunnea* was treated by Deignan (1964: 435) as a subspecies of *webbiana*; but Robson (2007: 315) pointed out that its widely accepted treatment as a separate species is supported by skeletal features of the skull (Han Lianxian 1991).

Sinosuthora alphonsiana was treated as a species distinct from *webbiana* by Deignan (1964) and in the first and second editions of Howard and Moore (1980, 1994), but Dickinson (2003) reduced it without comment to a subspecies of *webbiana*. The issue here appears to concern interbreeding: hybrids have been recorded from Sichuan, in two reports from the early twentieth century, and near Sa Pa in Tonkin. However, the frequency of hybridisation needs to be considered in any zone of overlap, and where the vast majority of two taxa breed true, with only infrequent hybridisation, this can be taken as evidence that the two taxa should be considered different species (Gill 1990: 501–502). Robson (2007: 293) commented that considering the level of association between the two, hard evidence of interbreeding is surprisingly scarce. Thus the evidence in fact favours treating the two taxa as distinct species, and we follow Robson (2007: 315) in this regard.

As with *alphonsiana*, the form *ricketti* was treated as an independent species by Deignan (1964) and in the first and second editions of the Howard and Moore (1980, 1994), but Dickinson (2003) relegated it without comment to a subspecies of *P. brunnea*. Dickinson may well have followed Han (1991), who merged *ricketti* with *brunnea* on the basis of feather colour, bill colour, geographical distribution and skeletal features. Robson (2007: 315) cited features of morphology in which the two taxa differ markedly but, pending further study, they are treated as conspecific here.

***Suthora* Hodgson, 1837**

Suthora Hodgson, 1837, *India Review* 2: 32. Type, by monotypy, *Suthora nipalensis* Hodgson, 1837. Synonyms: *Temnoris* Hodgson, 1841; *Sutoria* Nicholson, 1853; *Sutora* Des Murs, 1854.

- *Suthora fulvifrons* (Hodgson, 1845) **Fulvous Parrotbill**.
S. f. fulvifrons. Central and east Nepal; India (Himalayas of Sikkim and north West Bengal); Bhutan.

S. f. chayulensis Kinnear, 1940. India (central Arunachal Pradesh); adjacent south-east Tibet.

S. f. albifacies Mayr & Birkhead, 1937. North Myanmar; China (west and north-west Yunnan, and adjacent south-west Sichuan); extreme south-east Tibet.

S. f. cyanophrys A. David, 1874. China (south Shaanxi to south-central Sichuan).

Identity of populations in west and east Arunachal Pradesh, India, not yet known.

- *Suthora verreauxi* Sharpe, 1883 **Golden Parrotbill**.

S. v. verreauxi. China (central Sichuan to south Shaanxi and west Hubei).

S. v. craddocki Bingham, 1903. Extreme east Myanmar (east of Salween R); north Laos; Vietnam (west Tonkin and north-west part of east Tonkin); China (east Guangxi, south Hunan, north Guangdong).

S. v. pallida La Touche, 1922. China (north Fujian).

S. v. morrisoniana Ogilvie-Grant, 1906. Taiwan.

Identity of specimens from central Yunnan (Ailao Shan) and Guizhou, China, not yet determined.

- *Suthora nipalensis* Hodgson, 1837 **Grey-capped Parrotbill**.

S. n. garhwalensis (Fleming and Traylor, 1964). India (Uttarkhand).

S. n. nipalensis. West and central Nepal.

- *Suthora humii* Sharpe, 1883 **Orange-eared Parrotbill**. East Nepal; India (Sikkim and north West Bengal); Bhutan (east to Shemgang).

- *Suthora poliotis* Blyth, 1851 **Grey-breasted Parrotbill**.

S. p. poliotis. India (central and east Arunachal Pradesh, Meghalaya, south Assam, Nagaland, Manipur); west [north Chin Hills] and north Myanmar; China (west and north-west Yunnan).

S. p. feae Salvadori, 1889. East and south-east Myanmar; west and north-west Thailand.

- *Suthora ripponi* Sharpe, 1905 **Buff-breasted Parrotbill**.

S. r. patriciae Koelz, 1954. India (Mizoram).

S. r. ripponi. West Myanmar (south Chin Hills).

- *Suthora beaulieui* (Ripley, 1953) **Black-eared Parrotbill**.

S. b. beaulieui. North-east Thailand (Phu Luang); north and central Laos; Vietnam (N Annam).

S. b. kamoli (Eames, 2002). South Laos (east part); Vietnam (Central Highlands of C Annam).

These are small and small-billed parrotbills, with their collective length being 11.5–12.5 cm and weight 5–7 g. This group shares with the small parrotbills allocated to *Sinosuthora* a long graduated tail, with the outer retrices half the length of the central ones. The bill is short and thick, slightly longer than deep, with almost straight cutting edges. The nostrils are very small, circular and completely concealed by plumules, and the legs are long in relation to body size. Like *Sinosuthora*, the species in *Suthora* climb in a tit-like fashion, bounce between perches and hang upside-down. However, the voices of *Suthora* differ from those of *Sinosuthora*. *Suthora nipalensis* and *S. verreauxi* have strange, extended, high, wheezy, buzzy and nasal songs of 2–6 notes; although they also give extremely high, thin, steadily rising secondary-type songs of 2–4 notes, which are more similar to the songs of the *Sinosuthora* group. These two species also utter short rattles and quite harsh, low, slightly

sputtering calls, as well as scolding squeaky nasal calls. Sharpe (1883) assigned *fulvifrons* to *Chleuasicus*, but Hartert (1907) and Baker (1930) assigned it to *Suthora*. All three assigned *nipalensis* to *Suthora*, as did Sharpe in the case of *verreauxi*.

Deignan (1964) treated *verreauxi* as a subspecies of *nipalensis*, but Dickinson (2003: 623) split these taxa and Yeung *et al.* (2006: 88) indicated their paraphyletic relationship. Other evidence in Yeung *et al.* (2006) strongly suggests at least two species within the Black-throated Parrotbill *P. nipalensis* as arranged above: nominate *nipalensis*, which forms a sister clade with *verreauxi*; and *poliotis*, which forms a sister clade with *ripponi*. This split between *S. nipalensis* and *S. poliotis* was previously recognised by Baker (1930), who included *humii*, *feae* and *ripponi* in his *S. poliotis*. Furthermore, Yeung *et al.* (2006: 88) stated: 'the deep divergence between subspecies of *P. nipalensis* implies their taxonomic re-ranking to species status'. Robson (2007: 293) developed this point:

The Black-throated Parrotbill currently comprises a group of ten highly distinctive subspecies. Modern taxonomists would argue that these represent more than one species, and a simple division according to basic plumage differences would support the following five sibling species: the 'Grey-capped Parrotbill', consisting of the nominate race and subspecies *garhwalensis*; the 'Orange-eared Parrotbill', currently race *humii*; the 'Grey-breasted Parrotbill', made up from races *poliotis* and *feae*; the 'Buff-breasted Parrotbill', containing the taxa *ripponi* and *patriciae*; and the 'Black-eared Parrotbill', represented by the current races *beaulieui* and *kamoli*.

The plumage features and vocal differences of these various taxa are described in detail in Robson (2007: 317).

According to Robson (2007: 317), the form *crocotia* Kinnear, 1954, is currently best treated as a semi-stable hybrid population between *S. humii* and *S. poliotis*.

Neosuthora Hellmayr, 1911

Neosuthora Hellmayr, 1911, in Wytsman, *Genera Avium* Pt. 18: 74. Type, by original designation, *Suthora davidiana* Slater, 1897.

• *Neosuthora davidiana* (Slater, 1897) **Short-tailed Parrotbill.**

N. d. davidiana. China (south Zhejiang, north Fujian).
N. d. thompsoni (Bingham, 1903). East Myanmar; Thailand (south-east part of north-west and adjacent north-east); north Laos; Vietnam (north part of west Tonkin).

N. d. tonkinensis (Delacour, 1927). Laos (extreme east part of north and north-east part of central); Vietnam (east Tonkin, north Annam). Specimens from south Hunan and north Guangdong, China have not been assigned to a race.

This small species (9.5–10 cm, 8.5 g) has a jizz like that of a munia *Lonchura* (Estrildidae). Its song is also very distinctive, being a very thin, high-pitched rapid ascending series of 6–9 notes.

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