

Systematic notes on Asian birds. 38.
The McClelland drawings and a reappraisal of the 1835-36
survey of the birds of Assam

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With an Appendix by M.P. Walters

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McClelland brought back specimens and drawings from a survey in 1835-36 (and perhaps 1836-37). New birds were described in a paper read by Horsfield (1840). A comparison of the McClelland drawings of birds, held at the British Library, with the type specimens of birds newly named in 1840 and with other material has shown that McClelland's collection was not fully reported. McClelland actually recorded about 170 species not just 96 as then listed. Some birds listed in 1840 were misidentified, of these some have been corrected earlier but at least one is here newly considered and looks as if it needs further correction. Taxonomic and nomenclatural notes are included when necessary. The correct name to apply to the one species in the genus *Melanochlora*, the Sultan Tit, is not safely established but as dating is not proven the name in present usage is maintained for the sake of stability. In Appendix 3 a neotype is designated for *Tesia olivea* (McClelland, 1840)¹.

Introduction

John McClelland, M.D. (1800-1883)², whose greatest interest in natural history was geology, visited Assam in 1835-36³, together with Dr. Nathaniel Wallich (1786-1854), Dr. William Griffith (1810-1845)⁴ and others, to assess the suitability of the area for the cultivation of tea. The mission was on behalf of the Honourable East-India Company. One field that McClelland felt might provide evidence for or against the success of tea

¹ In full McClelland in Horsfield (1840); other identical cases occur throughout this paper.

² Dates of birth and death, unless otherwise stated, are taken from the index to Archer (1962).

³ Archer (1962: 41, 87) gave drawing dates of August and September 1836. It seems to me unlikely that drawings were not made until almost a year after specimens were collected. From the dates of the drawings I suspect, although I have not been able to establish this to my satisfaction, that the Deputation actually spent the 1836-37 cool season in Assam as well. Certainly Griffith was there from October 1836 to early February 1837 when he set out to cross the Naga and Chin hills and reach Ava (see Griffith, 1847-48: 21). More prolonged archival studies should be able to resolve this question.

⁴ William Griffith, M.D., who was summoned from Tenasserim to accompany the deputation (Archer, 1962: 41), was soon after the Assam trip attached to Captain Pemberton's 1837-38 Mission to the Court of Bhutan as Medical Officer and Botanist (Ludlow, 1937: 1). Substituted for Wallich as Superintendent of the East-India Company Botanic Garden, Calcutta 1842-1845 (van Steenis-Kruseman, 1950).

cultivation was natural history. The more similar the terrain and the flora and fauna were to the tea-growing areas of China the better the odds in favour.

It was in this context that the expedition surveyed and collected birds. Specimens were obtained and sent, with McClelland's report, to the Court of Directors of the East-India Company in 1837⁵ along with drawings⁶ expressly made by local artists. Wallich, then Superintendent of the Company's Botanic Garden in Calcutta (van Steenis-Kruseman, 1950; Archer, 1962; Wynne, 1966), no doubt made collections of, and reported on, the flora.

McClelland made preliminary identifications, which appear on the drawings, and provided written descriptions (although perhaps not of every species obtained). But he was aware of his limited experience as an ornithologist⁷ and requested that the Court of Directors have his collection examined by an expert and revised to take account of the most up-to-date information.

The Court of Directors of the Honourable East-India Company no doubt had little hesitation in asking Thomas Horsfield to revise McClelland's material. Horsfield had become responsible for the museum at East-India House, Leadenhall Street, London in 1820. In 1839 Thomas Horsfield, M.D. (1773-1859), presented a paper to the Zoological Society of London, published in 1840, and this appeared to cover McClelland's investigations and Horsfield's revisions of the mammals and birds. This paper (Horsfield, 1840) contained the descriptions of 26 new birds, 22 of which figure in the drawings (see Appendix 2).

Here I report upon my recent re-examination of the McClelland drawings held by the British Library Oriental and India Office Collections (NHD 6⁸; drawings 811-996). They have been dealt with in general terms by Archer (1962: 87), but her account contains a number of errors⁹. The present exercise appears to be the first time that the full collection of drawings has been examined with the related type specimens at hand. A report on the identity of all the birds depicted has been provided to the British Library. Some detailed information in that report is omitted here.

Appendix I contains a list of other species from Assam presented to the Museum of the East-India Company according to Horsfield & Moore (1854, 1856-58).

Historical Background¹⁰

The East-India Company's first ships arrived in India in 1608 and the Company

⁵ Possibly not reaching London until 1838.

⁶ I use the term 'drawings' because the British Library uses that term, but most of the drawings are coloured and might better be termed paintings.

⁷ An observation supported by his quoted remark "The Raven, the Carrion Crow, and the Rook, are inhabitants of Assam, but are seldom found in the depths of the forests."

⁸ NHD 6 = Natural History Drawings, Vol. 6.

⁹ For example Archer did not realise that there were two sets of drawings presented 18 years apart – although she mentioned duplicates – and missed the date spread of Blyth's comments. Nor did she realise that some birds depicted were not from Assam. Archer (1962: 43) wrote that "the skins had been roughly preserved and soon decayed" giving the impression that type specimens were generally no longer available. My Appendix shows that this is not correct, most are extant.

¹⁰ The first two paragraphs draw upon Keay (1993).

established its first trading posts in the Indian subcontinent in Masulipatam (on the east coast) in 1611 and Surat (on the western coast) in 1613. More important trading posts were later established at Madras in 1639 and Bombay in 1668 after its transfer from the Portuguese to the English crowns. The Portuguese had founded their western Indian settlement at Goa in 1510. The third of the Company's important settlements was at Calcutta in Bengal, on the banks of the Hoogly in 1690. These three towns, Madras, Bombay and Calcutta, each had a governor and council and operated independently, until 1773, when Calcutta was made the capital of British India.

During the course of the 18th century, the central authority of the Mughal empire declined, leaving the way open for successor states in the provinces, who became increasingly involved with the intrusive foreign companies. By 1740 there was serious trading competition between the British and the French, who had founded a trading colony at Pondicherry in 1674. During the 1740s-60s the French and the British fought for dominance in their influence in southern India, as an extension of their European competition, from which the English Company came off victorious. The regional powers attempts to curb the influence of the foreign companies began with the capture and destruction of Calcutta in 1756. This was followed in quick succession by its recapture and the establishment of the English Company as the government of eastern India in place of the Nawab of Bengal. Similarly, the power and territory of Madras was increased through the British victories in the four Mysore Wars. As British political power and influence spread, the number of soldiers, doctors and civilian administrators grew rapidly and amongst their number were a few keen naturalists.

Those most interested in birds included Hardwicke, Buchanan Hamilton, Sykes, Franklin and Tickell. Despite their work, the body of information for any reviser to work with in 1838 was still very slim.

Forster (1795) listed the known "Indian" avifauna near the end of the 18th century, but India was then still an ambiguous term that drew no clear lines between the subcontinent, south east Asia and the East Indies. Buchanan Hamilton had presented numerous drawings to the Company (Horsfield & Moore, 1854: iii), Hardwicke had also presented a bird collection to the Company and Gray (1830-32, 1832-35) was allowed to organise and publish some of Hardwicke's collected drawings. Until now most birds reported from India were based on the works of native artists. In about 1830 we see collecting begin (Kinnear, 1925). Limited collecting reports came from Franklin (1831), Sykes (1832) and Tickell (1833). The French had also published on their findings (e.g. Lesson, 1831).

In parallel, both Gould and Jardine were receiving birds from their contacts in India, and Nepal's birds were being reported and described by Hodgson¹¹. However, in 1839 Hodgson's material was not yet in London. Jerdon had arrived in India as a surgeon with the army, but had barely begun to collect; and Edward Blyth (1810-1873) had yet to reach India, taking up his position with the Asiatic Society of Bengal in 1841. The extensive published works of Blyth and of Jerdon were still to come.

The similarities between the birds of India and the Indies were already being remarked and depicted; and copies of Temminck & Laugier (1820-1839) were available in England. By 1837 all the plates and descriptions had been published and only the

¹¹ Numerous publications in various journals, see bibliography in Cocker & Inskipp (1988).

index of that work was lacking. Other relevant material had come from Horsfield (1821) in Java and from Raffles (1822) in Sumatra.

Geographical background

McClelland (1838) published a variety of reports on the travels of the Deputation in Assam and included a map showing the “tea plants” visited. A rough itinerary can be deduced from Griffith (1847: 1-20).

Ripley (1952) gave Shillong in the Khasi Hills as the centre or base for McClelland’s party and doubted that the deputation had gone as far as Sadiya. However Ripley (1961) retracted his opinion about Sadiya after reading Kinnear in Ludlow (1937) who wrote “The deputation travelled *via* the Khasia Hills to Sadiya, and from there Griffith and McClelland made an expedition to the Naga Hills¹². There is nothing on record to say where McClelland obtained his different specimens, and no locality other than Assam is given in his paper”.

The itinerary given by Griffith (1847), which would appear to be the source of Kinnear’s information, shows that the Deputation arrived in ‘Pubna’ [= Pabna, Bangladesh] on 9 September 1835 and after spending time in the Brahmaputra valley climbed to some 4200 feet at ‘Churra Punjee’ [= Cherrapunji, Meghalaya] where they spent about three weeks. Here they were in what McClelland in Horsfield (1840: 162) termed ‘the Kossia mountains’ [= Khasi hills]. They then descended to the valley of the Brahmaputra to reach Gowahatty [= Gauhati] and left there in early December for ‘Suddiya’ [= Sadiya, Assam] passing through Tezpoor [= Tezpur]. Griffith’s scattered references are confusing and relate to himself rather than the Deputation as a whole. I believe the Deputation followed the river to Sadiya and based itself there and then in mid February, as part of a month long side trip, Griffith (perhaps with McClelland) reached ‘Rangagurrah, capital of the Muttack country’ [= Rangagora, Assam, 27°34’N, 95°20’E]¹³ where elephants were employed for a week’s explorations beyond there. However, Griffith can also be read to mean that Sadiya was only reached after this side trip. One cause of this potential confusion could be that Wallich went directly upriver to Sadiya while Griffith and McClelland made a detour. The Deputation seems to have begun to leave Upper Assam by the end of February 1836. Griffith was again in Assam from mid September 1836¹⁴ to early February 1837. Some of the collecting may have been

¹² In fact, unless Rangagora was then said to be in them, the Naga Hills seem not to have been reached in 1835-36, although Griffith passed through in Feb. 1837.

¹³ “Present day Rangagora is in Tinsukia district. It is between Tinsukia town and Dibru-Saikhowa national park. It was part of the Motok (Muttack as written by British) country. There is no prominent place called by this name now but a tea garden is so named and is near Guijan, entry point to Dibru-Saikhowa national park. Although it is not near Nagaland, the hilly areas near Tinsukia district in Tirap district are also inhabited by Nagas. And the straight distance from foothills to Rangagora is around 40 km only”. (Anwaruddin Choudhury, in litt.).

¹⁴ Visiting the Mishmi hills in October/November, before revisiting the Khasi hills. If some ‘McClelland’ specimens were obtained in the Mishmi hills this might explain some of the intraspecific variations; see Dickinson & Dekker (2002: 22).

done by him then and sent back to Calcutta before he set out, probably through the Naga Hills, for Ava¹⁵.

The drawings

During, or just after, the expedition to Assam, McClelland had more than one set of drawings completed. The collection supports the view that McClelland used more than one artist, as the same species is depicted in differing styles. Of the 186 drawings all but 13 are of birds and several plates depict two to four species. The total number of bird species depicted is 119 (of which one is unidentified).

Most bird subjects appear in two near-identical drawings, but others are not duplicated. One set was dispatched to London, as mentioned above. The others evidently formed a set retained by McClelland. This second set, including some newly painted drawings, was presented to the Company in 1856.

It is necessary here to define the words used in this paper. The term 'first set' is used for those that arrived in 1837, and the term 'retained set' is used for that kept by McClelland and presented in 1856. It is not clear which drawings were actually executed first. The first drawings made might be expected to have been done under time pressure, and perhaps by several artists with different levels of skill that were probably little tested. In a few cases damage to the paint that is now apparent may have become apparent almost immediately or it may have emerged only after 20 more years of exposure to the humidity of Calcutta. By contrast there was time to give extra care and attention to painting a set of duplicates if the intent was to send a 'good set' of fair copies to London. In my opinion most of the first set are fair copies, but some may be the originals or first drawings.

I analysed drawings 811 to 843 to determine how the two sets could be distinguished. The original text in Indian ink included a scientific name: often one proposed as new, and as was then usual, that is signalled by the addition of "mihi" (mine). Some of these names were adopted by Horsfield (1840), but others were not usually because Horsfield believed that the taxa concerned had been named before. Separately, in the bottom left hand corner is to be found "McClelland Assam Collection" and a date, usually August or September 1836, but at least once a date in 1837. I presume these are the dates these drawings were made¹⁶. This text block sometimes includes an English name, but often none was given. A number in Indian ink in the bottom right hand corner is evidently McClelland's "plate number" as it is the same in both sets. These numbers, and the text in the bottom left hand corner, are in a clearer 'copper-plate' hand in the first set than those that we can be certain were in the retained set. Those in the retained set usually differ, and are reliably distinguished by, being inscribed "presented 1856".

I believe McClelland's retained set to have been comprised of the first attempts, perhaps made during the trip, by artists of varying skills plus some later drawings.

¹⁵ The kingdom of Ava, named after its capital (now ruins near Mandalay), controlled much of what was later called Burma, had ruled Assam and had had a boundary deep into the Malay Peninsula.

¹⁶ However they may be the dates of the 'fair copies' and even if not they may not reflect when the expedition was actually in the field.

It has the Indian ink text at bottom left in McClelland's somewhat looser handwriting (matching signatures he appended on set one). The ink is blacker, and presumably 20 years younger, where it states that they were presented to the Hon. East-India Company by McClelland in 1856. Once the retained set is distinguished it becomes clear that McClelland's set has pencil notes in it made by Blyth, the longer notes being initialled and dated May 1846¹⁷. Some of the other pencil notes in this set seem to be those of McClelland himself. In this copy there are many comments on, or alternatives to, the original names given in Indian ink. Some such comments or changes are in ink, but most are in pencil and usually just Latin names suggested as synonyms or corrected identities. There have been some deletions and erasures to ink names and to later pencil names.

The first set dispatched to the Court of Directors has McClelland's signature on each picture, this signature is usually on the better of two copies (i.e. a 'fair' copy). Some are rather more finished than the first drawing may have been. In some cases where the colour in one of the two has suffered from some chemical reaction, the first set holds the comparatively undamaged painting. However, this damage may be due to a longer exposure to the Indian climate. The Indian ink text is usually in the 'copper-plate' writing of a copyist, and the identical date for each drawing is copied over (with occasional errors). This set has a few pencil annotations too, but far fewer and none is initialled or signed by Blyth.

Horsfield & Moore (1854) reported some McClelland drawings to be already in the East-India Company's Museum in London. These were the drawings first sent to the Court of Directors. It is unclear when the whole collection was assembled and bound. In their present bound form the pairs of near-identical drawings mounted on large uniform sheets of paper usually appear face to face. Red ink numbers are those used when the drawings were assembled and arranged for binding; it is these, not the original numbers, which we cite below (e.g. as NHD 6/818; but both are in Appendix 2).

There are hand-written notes on some drawings in each set. The original set, in London, was apparently annotated by Thomas Horsfield (and possibly by others). Initially such annotations may have been made during his revision of McClelland's report, but some notations are later and made during his continuing role as Curator of the Company's collection and during the preparation of the catalogue of that collection (Horsfield & Moore, 1854, 1856-58). This set was also inspected by H.E. Strickland¹⁸, and probably by John Gould and other ornithologists of the day, such as Sir William Jardine. On the second set most notations are by McClelland himself or by Blyth. Those written, and usually initialled, by Edward Blyth are of particular historical importance. Blyth was Curator of the natural history collections of the Asiatic Society of Bengal from 1841-1862 and laid the foundations for a thorough understanding of the ornithology of British India¹⁹.

¹⁷ The dates of such annotations are important when these fall during Blyth's time in India. But we also know that Blyth examined the drawings in London in about 1861.

¹⁸ Source: an annotation on drawing NHD 6/845, almost certainly written by Blyth, saying that Strickland reidentified the subject of the drawing as *Sibia capistrata* Vigors v[ar]. *nigrescens* Hodgson. It was indeed a sibia, but it was a new species and not what Strickland thought.

¹⁹ For an obituary see Blyth (1875), published posthumously with details of Blyth's life in the introduction written by A. Grote.

The 'retained set' largely duplicates the first set. Some, perhaps many, are the first attempts by the artists, others are copies that were judged less good than the first drawings. It also included a number of extra drawings, some of which do not relate to the 1836 Expedition, and these will not have been available to Horsfield in 1839. During at least part of the period from 1838 to 1856 McClelland apparently had this set with him in India. It was examined by Blyth at least three times²⁰ between 1842 and 1846 and may well have been available to him whenever he needed to see it. Many of the pictures making up the retained set have the 1856 date of presentation marked on them. Often this appears just above the date that appears on copies in the first set, which appears to be the date the painting was executed. The style of the numbering in the corners of the pictures differs. This makes it possible, for most of the pictures *not* carrying the date 1856, to determine which copy belonged to the first set and which to the retained set.

Because the first set of drawings relate to the paper by Horsfield (1840) it is appropriate to refer to the names used in that paper as well as to the nomenclature used in Ripley (1982).

Horsfield's presentation to the Zoological Society

It is only through an examination of the drawings that it becomes apparent that Horsfield's presentation, and thus the paper purporting to fully report McClelland's findings, seems - and is - incomplete.

Horsfield made minimal mention of the drawings and one gains the impression that if Horsfield exhibited anything it was the skins not the plates. The quality of the drawings was not in the same league as the paintings done by Huet and Prêtre for Temminck & Laugier (1820-1839) or of the paintings flowing from John Gould and his artists. One can imagine that a better appreciation of the novelties might be expected from a display of the skins²¹.

Horsfield covered 96 taxa, included 26 novelties and the impression is given, by the inclusion of many species that were not new (including birds for which McClelland had apparently sent no drawings - see Appendix 2), that the report was comprehensive. This is not correct. There were some 27 other taxa (see Appendix 2) depicted in McClelland's first set of drawings not covered by Horsfield (they included taxa which Horsfield did not recognise as new, one of these being remarkably distinct).

The drawings listed in Appendix 2, part A, depict 69 species. All those left out, except some barbets, were game birds, pigeons or waterbirds and I believe these

²⁰ See Blyth (1842b: 457) and later dated mss notes by Blyth on the drawings.

²¹ Horsfield & Moore (1854: iv) indicated that further collections of birds were received from McClelland in 1841 and 1843. They made no mention of drawings in connection with these birds. Archer (1962), who apparently did not discover and connect the 1840 paper under Horsfield's name, thought these skins to be those on which the drawings were based, but Horsfield & Moore (1854: iv) showed skins were received with the drawings in 1837. Appendix 1 (herewith) shows that most taxa were still represented by McClelland specimens in 1854, and despite comments by Archer (1962: 43) almost all the types survive. Archer's statement that 'the skins had been roughly preserved and soon decayed' was probably based on advice from Kinnear and more relevant to the collection of the Company as a whole.

were held back for further study. After a review of the evidence I have concluded that there was always a storage problem with the largest specimens and that this also led to the fact that the museum's catalogue (Horsfield & Moore, 1854, 1856-58) was never completed²².

An additional 48 identifiable taxa, and one other that I have not identified to species, were included in those of McClelland's drawings which were not reported upon by Horsfield, but one or two of these are apparently not based on Assamese birds. This makes 118 species depicted. Horsfield listed 27 more species for which no drawing seems to have been made (and of which in some cases specimens may not have been kept, or not even taken). Appendix 1 lists the evidence for the collection of 21 more species.

In sum, McClelland seems to have had good evidence from 'Assam' for close to 170 bird species²³. This total shows just how remarkable McClelland's work was. In its day this was a very considerable sampling of the avifauna of what was then called Assam.

Horsfield (1840) mentioned the safe receipt of McClelland's collection and accompanying descriptive catalogue and drawings. He added that "these ... are now, with few exceptions, prepared and exhibited in the Company's Museum at India House". The implication seems to be that on 22 October 1839 when Horsfield read his paper to a meeting of the Zoological Society of London the bulk of the material discussed was not exhibited to the audience, but remained on display at India House.

Although there is no evidence for it, a plausible reason why, in some cases, there may have been no painting might be that McClelland took the view that the species was known and a plate existed. Of those not depicted, Horsfield named three as new: *Coracias affinis*²⁴, *Mirafra Assamica* and *Mirafra flavicollis*. No notes by McClelland were quoted by Horsfield for any of these.

The attribution of names to Horsfield or to McClelland

Particular care has been paid to the attribution of authorship in the case of names of taxa described in the paper of Horsfield (1840)²⁵. Horsfield wrote "Mr. McClelland then expresses his desire that his Descriptive Catalogue, before publication, should be revised in England, in order to prevent the introduction of mere nominal species, and to conform the nomenclature to the latest discoveries in science" and continued "the only object has been to secure to Mr. McClelland the discoveries he has made".

Some writers have considered that all the new species, and indeed the whole content, should be credited to McClelland as the author. For example Warren (1966) and

²² There seems to be a broad correlation between the species not dealt with by Horsfield (1840) and what was not published in Horsfield & Moore (1854, 1856-58).

²³ It is not possible to be exact as some drawings are not from Assam. McClelland (1837a, b) listed 139 forms of birds.

²⁴ Presumably based on minor distinctions from *Coracias benghalensis* (Linnaeus, 1766) and *Coracias benghalensis indica* Linnaeus, 1766 – neither of which Horsfield mentioned.

²⁵ This section expands and provides reasons for a footnote that appeared in Dickinson et al. (2002a: 62) and the Appendix to that paper (p. 70).

Warren & Harrison (1971) consistently credited every name²⁶ to McClelland “in Horsfield” (although Warren & Harrison were inconsistent about whether the right date was 1840 or 1839)²⁷.

Whether Warren & Harrison were correct to assign all the names to McClelland should presumably be judged in the context of Art. 50 of the International Code of Zoological Nomenclature (ICZN, 1961). However, the present (4th) edition of the Code (ICZN, 1999) has an expanded Art. 50 and, as editions supersede each other, it is necessary to apply that in this paper.

The 1961 Code said “the author (authors) of a scientific name is (are) the person (persons) who first publish(es) it in a way that satisfies the criteria of availability, unless it is clear from the contents of the publication that only one (or some) of the joint authors, or some other person (or persons) is alone responsible for both the name and the conditions that make it available”.

The present Code (ICZN, 1999), making clear that the same conditions must be met, uses the phrase “if a work is by more than one person but it is clear from the contents that only one person is responsible for the name or act, then that person is the author”²⁸. In both contexts the conditions include what may be termed ‘proper’ publication and the inclusion of either a description or an ‘indication’.

The word ‘indication’ essentially means a cross-reference - to a prior description or to a published illustration. But it is the content of the new Art. 50.1.1 that is important. This says: “However, if it is clear from the contents that some person other than an author of the work is alone responsible for the name or act and for satisfying the criteria of availability other than actual publication, then that other person is the author of the name or act.” Note that that person’s identity must be explicit in the work.

In Horsfield (1840) there are 11 cases where the new name is accompanied by a Latin diagnosis *and* by an English vernacular description set within quotation marks and attributed to McClelland (although one of these is a special case). The other 14 cases either have no quoted text from McClelland or the text quoted does not include any description. The Latin diagnoses must, by virtue of the conventional use of quotation marks around the English descriptions but not the Latin, have been written not by McClelland but by Horsfield²⁹. What is needed is a consistent method for crediting all the new names.

There are, in my view, three ways that this could be done:

1. By attributing all new names to McClelland. An exception would need to be made for the special case (*Hypsipetes mclellandii*) mentioned above where it was evident-

²⁶ Including *Hypsipetes McClellandii* despite the notation “Horsf.” used by Horsfield (1840: 159).

²⁷ That it appeared in 1840 is confirmed by Duncan (1937).

²⁸ I do not take this to exclude crediting two authors if appropriate; see Art. 50.1.3.

²⁹ The whole paper by Horsfield (1840) was reprinted in the *Ann. Mag. Nat. Hist.* (1)6: 366-374 and 450-461 (1841). The text is the same but for a footnote (p. 367) saying “the names used in this paper, where no authority is given, are those of Mr. McClelland’s MS”. So far this MS has not been traced. This footnote, a testimony to the honourable intentions of Dr. Horsfield, is excluded from consideration under the Code by its absence in the original. It is also apparent, from close examination, that it is almost certainly untrue (e.g. in the case of *Coracias affinis*).

ly intended that Horsfield should be seen to be the author and that McClelland, as the subject of the specific binomen, obtain his recognition that way. In support of this approach is Horsfield's statement that he wished "to secure to Mr. McClelland" the credit, and the footnote in the 1841 reprint (see my footnote 27). This would appear to have been the approach of Warren (1966) and Warren & Harrison (1971). Under this approach the scientific name would provide automatic mention of Horsfield only in the one instance mentioned.

2. By crediting to Horsfield those names, where no descriptive text by McClelland is included, and also crediting to him the same exceptional case (which is further explained below), and by crediting all others to McClelland. The nub of this argument is that by the omission of McClelland's name after each binomen Horsfield disqualified McClelland in cases where the latter's description, if any, was not quoted. Note that this is due to the effect of the Code rather than to Horsfield's intent.
3. By crediting both authors for those names where McClelland supplied a vernacular description and Horsfield a Latin one. In support of this view one might note that it was McClelland's express wish that his text *should* be revised. However, the application of quotation marks around McClelland's portions of text was subject to a convention that was widely used, and which implied that the author of such quoted remarks was not the author of the publication³⁰.

As many years have passed since publication, and different treatments have been used in the interim, it seems desirable that a deliberate selection between these alternatives should now take into account the present state of nomenclature and the 1999 Code. The intent must be to achieve stability.

Because Ripley (1982) is widely taken as the standard reference for Indian avian nomenclature it is appropriate to examine how Ripley handled these names. The short answer is that he relied on secondary sources. One finds that of the 26 names he included 20, the other six not making his limited synonymies. Of the 20 ten are credited to Horsfield, plus one where he added 'ex McClelland MS', and six to McClelland plus two credited to 'McClelland in Horsfield'. In the final case, that of *Gecinulus grantia*, his bold taxon name employed Horsfield, while his citation credited the name to McClelland. Ripley was also erratic over the date to cite, sometimes with explanatory detail, using 1840 14 times and 1839 six times.

Among the names is *Hypsipetes maclellandii* and by 1840 there was already a convention that one did not name new taxa for oneself. Horsfield followed this name with an attribution to himself so that it is quite clear that Horsfield named this, in spite of the vernacular description by McClelland. Ripley (1982), probably following Deignan (1960), accepted this.

³⁰ Set against this it must be observed that during the 19th century credit was usually given to McClelland and not to Horsfield. The varied usage that has developed since is presumably due in part to attempts to apply one or another edition of the ICZN Code to the individual cases. I have traced no previous attempt to propose a consistent logic to all of the avian names proposed.

A further examination of his choice of Horsfield over McClelland shows that he did not credit McClelland with the names *Leiothrix lepida*³¹ and *Leiothrix signata*³² despite the presence of vernacular descriptions by McClelland. And in the cases of the lack of English descriptions where those ideas would support the use of Horsfield he did not credit Horsfield with the names *Hypsipetes gracilis* and *Cinnyris assamensis*. Usage in the case of *Ixos monticola* is discussed separately and I there disagree with Ripley's usage. But in 15 of 20 cases Ripley's usage agrees with option 2 above.

I conclude therefore that a decision to follow alternative 2, set out above, is the solution to be preferred. This combines consistency of logic with a minimum of change. In cases where McClelland is to be cited as the author it will be preferable to refer to 'McClelland in Horsfield (1840)'. Appendix 2 contains the author's name for each form described based on this approach.

The Catalogue of Horsfield & Moore (1854, 1856-58³³)

This study brought home to me the problems of using this important but incomplete work. In working with it for the appendix to Dickinson et al. (2002a: 68-74) I had not appreciated these problems. I had not examined Horsfield & Moore's Appendix I (pp. 381-413, with a signature date in July 1854) within which the account of *Pericrocotus solaris* on p. 393 was relevant, nor Appendix II (pp. 414-423, with a signature date of August, 1854) with relevant corrections listed. This omission does not affect our conclusions in Dickinson et al. (2002a) as we had found the information to which the listed changes relate.

In this study it seemed obvious that McClelland's types and drawings would be mentioned in the Catalogue. What was not immediately obvious, and I should have known this, was that the Catalogue was never completed. At the least the "Rasores, Grallatores and the Natatores" (see Horsfield & Moore, 1854: v) were apparently never completed and published. Horsfield died in 1859; Moore lived until 1907. However, after the 'Mutiny' the East-India Company was wound up by the Government, and one may assume that there can have been no funds available for the completion of this work by Moore. Prior to the demolition of East-India House the collections were moved to Fyfe House in Whitehall in 1860 (Archer, 1962), and in these smaller quarters were very probably insufficiently accessible for cataloguing to continue. Nor did I immediately realise that the drawings presented in 1856 - the retained set - would not be mentioned in any of the species accounts published in the 1854 volume; this took time to sink in!

Coming 14 to 18 years after Horsfield (1840), the Catalogue does contain a good number of corrections to the nomenclature³⁴. However, in some cases, types or drawings one would expect to have been in the collection, because they are from the first

³¹ Whereas Deignan (1964: 394) did credit McClelland.

³² And was followed in this by Watson (1986: 357).

³³ The title page to Vol. 2 carries the dates "1856-58". However, I am aware of no evidence showing that this volume was published in two or more parts. Although many 'signatures' of text carry dates these may simply be the dates when the pages were set in type.

³⁴ Horsfield & Moore were careful to cite all names except *Hypsipetes McClellandii* as McClelland's names.

set drawings, are not mentioned even in volume 1. In other cases, if the information provided is reliable (and most of it seems to be), the Catalogue explains whether there was more than a single type specimen³⁵, and by inference whether the drawing was unsupported by a specimen³⁶.

I did not discover why some listed specimens are signalled by capital letters and others by small case letters (perhaps the former were mounted specimens). The method of noting 'specimens' by a letter was also not wholly clear to me; sometimes a drawing seems to get a similar indicating letter, while in other cases it seems not to do so.

It may sound as if the Catalogue was of little use. This is not so; it has a very useful synonymy of the older names and the corrections to nomenclature that it gave, as they related to names discussed herein, fitted well with evidence from other sources (except in one case). See also Appendix 1.

Comments on particular species treated by Horsfield (1840)

In this section I deal with some individual taxa in the order of Appendix 2, which, within each of its sections, is essentially the order of the 'NHD 6' drawing numbers at the British Library. It is not a scientific sequence.

The identity of the images in the drawings is covered in Appendix 2, which has been expanded to include taxa apparently obtained or reported by McClelland for which there were no drawings. This appendix includes 'current' identities as used by Ripley (1982)³⁷. These names are also those used in the text below³⁸. Validation of the link between the name used in Horsfield (1840) and the 'current' names is generally easy using Horsfield & Moore (1854, 1856-58), Baker (1930a, b) and Ripley (1982). Only if there is a problem is there any discussion of synonymy below.

A column in Appendix 2 signals whether one type specimen (or more) has been located in Tring. In three cases none was found. In two of these there may never have been type specimens as Horsfield & Moore (1854) list none. The third case, *Aethopyga siparaja labecula*, is discussed below. The following sections of text correlate to sections A to E in Appendix 2.

A. Taxa depicted in a drawing and listed by Horsfield (1840)

A1 *Pycnonotus jocosus monticola* (Horsfield, 1840). NHD 6/818

I have made the general case for the attribution of authorship above. In this case Ripley (1982) presumably followed Deignan (1948; 1960: 232) in attributing this name

³⁵ Horsfield (1840) did not provide this information so all specimens of the new taxa listed as from McClelland's Assam collection are potentially types.

³⁶ Of course the lack of a specimen in 1854 does not prove that there never was one.

³⁷ In some cases the scientific names used by Ripley (1982) are not exactly those used to-day (usually due to different perceptions of generic or specific limits so that the trinomen will almost always be essentially unchanged to-day).

³⁸ In order to minimise confusion no attempt is made in this paper to replace these names in cases where more recent taxonomic treatment has led to the use of different names.

to McClelland. Dickinson et al. (2002b) certainly did so. However, this study has led me to believe that the name *monticola* should be attributed to Horsfield and not to McClelland. The information published from McClelland's notes does not include a true description. Information on the drawing which could show that McClelland proposed the name *monticola* is not within the paper itself and cannot be used as evidence. Even if it could be so used, the absence of McClelland's description makes it necessary to treat Horsfield as the author.

A2 *Pericrocotus flammeus speciosus* (Latham, 1790). NHD 6/823-824

This contains one line drawing on each side of a coloured figure. The coloured figure is of a male minivet labelled *Phoenicornis elegans* mihi. The sketch to the left is annotated *Phoenicornis brevisrostris* "Gould" [= (Vigors, 1831-32)]³⁹ and that to the right is similarly identified with *Phoenicornis princeps* "Gould" [= (Vigors, 1831-32)]. This would be consistent with Horsfield's text in which *princeps* is species 19, *brevirostris* species 20 and Horsfield's new *elegans* species 21. There is no English vernacular description by McClelland given in the usual quotation marks.

Horsfield & Moore (1854: 143) initially tell us that they had a drawing of a male *P. elegans*, which they listed as a synonym of *flammeus*⁴⁰ (and their listing may indicate they had the specimen too), and that they had a specimen and a drawing of *P. speciosus*. From their synonymy it can be seen that the name *P. princeps* used by Horsfield (1840) related to *P. speciosus*. Later on p. 418 they mention two female specimens of *speciosus* from Assam, but they do not mention McClelland and these may be later material. Two specimens in the Natural History Museum in Tring (BMNH 1880.1.1.2755 and 2935) sustain the view that there were two very different male specimens.

For a discussion of the implication of this drawing, and the element of doubt still surrounding the origin of one of them, for a decision as to the utility of the name *elegans* see Dickinson & Walters in Dickinson et al. (2002a). There, the specimen painted for drawing 823 was designated as the lectotype. We did not feel we could be sure that 1880.1.1.2755 was that specimen (although the probability is great that it is⁴¹), but we were confident that 1880.1.1.2935 was not. The fact that these two names (*princeps* and *elegans*) are both now treated as synonyms of *P. f. speciosus* is open to two interpretations. Either it is due to naming two age classes of males, or to naming two specimens that represent somewhat different populations which have been brought together through a process of fallacious reasoning about the exact type locality of *elegans* as discussed by Dickinson & Dekker (2002: 22-23). It may even be a combination of these two reasons.

A3 *Pericrocotus brevisrostris* (Vigors, 1831-32). NHD 6/825-826

This depicts two yellow and grey minivets (colour plate 1) which I believe were the basis for the name *Phoenicornis affinis* McClelland, 1840. As discussed by Dickinson

³⁹ For the need to cite Vigors not Gould, see McAllan & Bruce (2002).

⁴⁰ This name applies to birds from Ceylon and peninsular India, not to northern birds.

⁴¹ And I recommend that it be placed with the type collection in Tring.

et al. (2002a: 70-72) it was soon realised that neither image was an adult male, which would be expected to be red and black. Rather, the two images were females of two different species. Horsfield (1840) believed that the upper image, his 'male', had been depicted, wrongly, by Gould (1831) as the female of *brevirostris* Vigors.

The view that the upper image was female *brevirostris* was soon accepted (e.g. by Blyth, 1846b) and the identity of the lower image became the issue. Blyth (1846b: 310; 1852) thought that this was a female of *Pericrocotus roseus*. Dickinson et al. (2002a; op. cit. supra) believed that this idea was rejected only by Hume (1877). However, they overlooked the corrections made in Horsfield & Moore (1854: 393, 418) where, almost 20 years earlier, it was re-identified with *P. solaris*.

The two images differ in relatively subtle ways and it was very helpful to be able to examine the putative types of the name *Phaenicornis affinis* McClelland, 1840, in the light of this drawing. For a detailed discussion of the issues involved here see Dickinson et al. (2002a). In summary, however, the specimen best representing the upper image (BMNH 1880.1.1.2757) was designated as the lectotype. This firmly places the name *affinis* in the synonymy of the species *brevirostris*, where it has been used by Peters et al. (1960) as a valid name for the population of the eastern Himalayas, however its subspecific distinctness remains questionable. It was not clear what specimen McClelland might have used for the lower image, but it was felt that that image might depict the female of *P. solaris*.

A4 *Dicrurus remifer tectirostris* (Hodgson, 1836a). NHD 6/827-828
***Dicrurus paradiseus grandis* (Gould, 1836a). NHD 6/829-830**

NHD 6/827 depicts *Dicrurus remifer tectirostris* (Hodgson, 1836a) and NHD 6/829 depicts *Dicrurus paradiseus grandis* (Gould, 1836a). Horsfield (1840) employed the name *rangoonensis* (Gould, 1836a) for the former, and *grandis* (Gould, 1836a) for the latter.

On the retained second set copy of 827, i.e. 828, appears a notation reading "*E. remifer* erroneously referred by Horsfield to *rangoonensis* Gould; identical with *tectirostris* of Hodgson". The drawing is of a drongo with very prolonged outer tail feathers with barbs on both sides along the final third of the prolongation or less. This is indeed *D. remifer*.

On the retained set copy of 829, i.e. 830, is found "*Edolius cristatellus* nobis termed *grandis* Gould by Horsfield, which explains his remarks concerning the size, vide J. As. Soc. XI, 173. E.B.". A later annotation also appears "probably true *grandis* Gould and *malabaroides* Hodgson. E.B. May 1846". This is indeed the larger species. What are we to make of these comments? As we shall see Blyth was right that this depiction must tie in with the use of the name *grandis* by Horsfield (1840).

Blyth (1842a: 170-173) discussed the confusion engendered by the use of the name *malabaricus* by differing authors for birds from different regions and accepted *grandis* Gould as a safer name for the species with the substantial crest on its forehead, and described *cristatellus* as much smaller and with a frontal crest half the size. He then turned to a third "racket-tailed species", *rangoonensis* Gould, and noted that Horsfield (1840) had had one McClelland specimen that he claimed matched Gould's description of *rangoonensis* and two that had less developed crests. Blyth (op. cit.) drew particular attention to Gould's statement that *rangoonensis* was distinguished "by the total

absence from its forehead of the curled plumes which decorate that bird"⁴². He does not elaborate on McClelland's three specimens, but they were out of reach in London. These days the species *paradiseus* is seen to have three Indian taxa: nominate *paradiseus* in southern India and in central south-east Asia, *rangoonensis* in central India and northern south-east Asia, and *grandis* to the north of it and higher in the Himalayas (Vaurie, 1949, 1962). This view was not shared by Ripley (1961: 292; 1982: 274) who, if he accepted *rangoonensis*, did not accept it from India⁴³. Whichever authority one selects nominate *paradiseus* does not breed in Assam.

Blyth (1842c: 800) admitted that his first attempt to sort out the drongos had been only partly successful and provided a plate with drawings of the bill and frontal feathers from above and the side⁴⁴. He associated *rangoonensis* as used by Horsfield (i.e. the Assam record) with *remifer*. On NHD 6/827, the London 'original', is a hand-written annotation dated 'Feb. 13, 1844' indicating that Blyth was considered to be wrong. I ascribe this notation to Horsfield, and it is evident that he must have been referring to Blyth (1842a) or Blyth (1842c). Blyth (1846b: 294) tackled the drongos for a third time and now again clearly assigned McClelland's Assam records to *remifer*.

If we return to the two drawings we can now unravel how Horsfield & Moore (1854) listed the McClelland drawings and specimens. We must first dispose of *remifer* (op. cit. p. 159); for this they do not mention Horsfield or McClelland's paper on Assam in their synonymy, but do list one specimen and a drawing. On this basis drawing 827 is that drawing and I list one specimen of that in Appendix 2. Two relevant entries then remain in Horsfield & Moore (1854). One under *paradiseus* (p. 155) with *grandis* and reference to the 1840 paper in the synonymy, represented by one specimen and a drawing. The other is under *malabaricus* (p. 157) with *rangoonensis* and reference to the 1840 paper in the synonymy, and one specimen but no drawing.

So Blyth was right that Horsfield (1840) had employed the name *rangoonensis* for a composite series (of which the third specimen seems to be lost). Unless this '*malabaricus*' specimen can be located and re-examined it may be presumed that it is representative of the species *paradiseus*. In Appendix 2 this specimen has not been added to the count for either *D. r. tectirostris* or *D. p. grandis*. I have instead added a query to the specimen count for each of those.

A5 *Dicrurus aeneus* Vieillot, 1817. NHD 6/832-833

The identification in this case is disputed: 833, from the first set, is marked *Edolius (indicus) aeneus* Vieill., but the retained set copy, 832, is marked *E. balicassius* auct.,

⁴² This distinction was from "*E. Malabaricus [subcristatus]*". The name *malabaricus* was later shown to have been used by different authors for quite different taxa. On a separate point: in this paper Blyth used the name *grandis* in the wrong context (see Blyth, 1846b: 295-296).

⁴³ Ripley (1982: 274) did not list *rangoonensis* in his synonymy as he should have done had he considered it an intergrade, but that is what I believe Ripley, in fact, must have concluded.

⁴⁴ His plate and text did not resolve the problems. In this text Blyth had not discovered that the Philippine species *balicassius* was unrepresented in India. He also inserted a note about the name *paradiseus* which he thought was one of three taxa he had listed, but was also associated with China. Both names have been clarified and brought into use later.

albirictus Hodgson, which is the recognised race of *Dicrurus macrocercus* in Assam. I believe the sketch is closer to the former. Horsfield & Moore (1854: 160) listed a McClelland specimen of *aeneus*. They also listed *balicassius* in relation to the 1840 paper as a synonym of *D. macrocercus* but they seem to have had no specimen or drawing.

A6 *Garrulax monilegerus monilegerus* (Hodgson, 1836b). NHD 6/855-856

Drawing NHD 6/855 can only relate to what Horsfield (1840) called *Ianthocincla pectoralis* Gould, 1836b. Horsfield had perhaps not yet seen the sibling species described by Hodgson. McClelland's descriptive text would not have sufficed to distinguish *pectoralis* from *monilegerus*.

On NHD 6/856 Blyth wrote, in May 1846, 'perhaps a variety of *monileger* [sic] Hodgson'. The pale, yellowish legs in the plate suggest he was correct. Horsfield & Moore (1854: 204) corrected this and listed the specimen and drawing and the synonym under *G. monileger* [sic].

A7 *Phoenicurus aureus leucopterus* (Blyth, 1843). NHD 6/863-864

The central image in NHD 6/864 (first set) is the bird which Horsfield (1840) called *Phoenicura Reevesii* Gray [n.d.]. The history of the J.E. Gray's name, originally *Sylvia (Phoenicurus) Reevesii*, which appeared in his Zoological Miscellany in 1831 on page 1 and dates from Feb. 1831 (see Kluge, 1971), is complicated. G.R. Gray (1869: 221) made it a synonym of *aureus*. Sharpe (1882: 344-345) agreed that it was first used for this species and that 'McClelland (1840)' used it for this species, but noted that it was also used by some later authors⁴⁵ as an earlier name for *Phoenicurus hodgsoni* (Moore, in Horsfield & Moore, 1854). The description is brief and, due to the similarity of these two species and its brevity, open to interpretation. Both can be found in China, whence Gray's material was obtained by John Reeves. Gray's type is not thought to survive, at least at Tring where it might be expected (Warren & Harrison, 1971), and no benefit would be obtained by reopening the issue. The name *aureus* Pallas (1776) has priority.

Horsfield & Moore (1854: 306) listed a male specimen and a drawing and (op. cit. p. 423) mentioned two more specimens.

A8 *Paradoxornis flavirostris* Gould, 1836c. NHD 6/874-875

NHD 6/875 (first set) was rightly attributed to this species by Horsfield (1840). He also mentioned that McClelland had recently named it *Bathyrhynchus* [sic] *brevirostris*⁴⁶. McClelland's description appeared twice (in late 1837 or early 1838) (McClelland, 1837a, b). Hodgson (1837c) judged, from the colour plate and the

⁴⁵ For example Blyth. G.R. Gray (1869: 221) listed Blyth's usage in the synonymy of *hodgsoni*.

⁴⁶ If the original description is taken to be that in the India Review, as Horsfield (1840) believed, then the spelling of the generic name appeared as *Bathyrhynchus*. Hodgson's use of *Bathyrhynchus* may be considered that of a First Reviser.

description, that this appeared to be the same bird that he had obtained which Gould had named *Paradoxornis flavirostris*.

A9 *Sturnus malabaricus malabaricus* (Gmelin, 1789). NHD 6/876-877

Drawing NHD 6/876 relates to the use by Horsfield (1840) of the name *Pastor pagodarum* Temm. In fact, the depiction is not of that species. NHD 6/877 has been annotated *Sturnia malabarica* but it is not apparent when or by whom. Horsfield & Moore (1856-58: 530) listed the name in synonymy of *Temenuchus malabaricus* (Gmelin, 1789), as relating to the female, but had only two males and the drawings.

A10 *Stachyris rufifrons ambigua* (Harington, 1915). NHD 6/878-879

This drawing (NHD 6/879: first set) (colour plate 2) relates to the use by Horsfield (1840) of the name *Timalia pileata* Horsf. [n.d. = 1821]. I have no doubt that McClelland's plate does not depict *Timalia pileata*. It is understandable that McClelland, who may only have had a picture or written description of *Timalia pileata*, should think the bird that he had depicted - if depicted accurately - matched the description of *T. pileata*. However he gave a surprisingly large difference in size, saying that the Assamese bird is five and a half inches [140 mm] long and the Javan bird six and a half inches [166 mm].

Horsfield & Moore (1854: 227) continued to treat the Assamese bird as *pileata*, and listed one specimen and a drawing. Later, Horsfield & Moore (1854: 409) had four Nepal specimens of *Stachyris ruficeps* and should then perhaps have seen that the McClelland specimen was not *T. pileata*. Some 25 years after Horsfield's paper Blyth (1865: 43) associated McClelland's use of the name *T. pileata* with *Stachyris ruficeps* Blyth, 1847b, referring to the drawing, now "in Fyfe House".

It was Harington (1915: 630) who showed that the Indian form of the species *Stachyris rufifrons* Hume, 1873, needed recognition and described it as *ambigua* from North Cachar, but with other specimens from Assam. Just a page earlier, on p. 629, Harington showed that despite the words in Blyth's description of *Stachyris ruficeps* Blyth, 1847b, the types did not show the "chin and middle of throat white" as reported, but that on these parts they were yellow with black shaft streaks. Harington (1915) thus described *ambigua* after having inspected Blyth's types of *ruficeps*.

Blyth (1865) was close, but I think he was also wrong. As mentioned above the species *S. rufifrons* was yet to be described. The drawing is, to my eyes, almost certainly *Stachyris rufifrons ambigua*. It shows a bird with a white throat not a yellowish one. The difference is well-depicted in Grimmett et al., 1998 (pl. 132) where *ruficeps* differs from *rufifrons* by lacking the white throat and having fainter, or less contrasting, black shaft stripes.

A11 *Aethopyga siparaja labecula* (Horsfield, 1840). NHD 6/884

The type of this should be in the Natural History Museum, Tring. It was not listed by Warren & Harrison (1971) and it has not been found since. Gadow (1884: 19-21) did not list the specimen, but Sharpe (1906: 398) wrote that it had reached the British Museum.

A12 "*Tesia olivea* McClelland, 1840". NHD 6/885

The Natural History Museum does not have a type specimen (Warren & Harrison, 1971). Horsfield & Moore (1854: 179), who mention the drawing may have done so but they identified it with *Tesia cyaniventer*. A careful examination of the McClelland drawing (colour plate 3) has yielded some interesting information and Michael Walters attends to this in Appendix 3.

A13 *Minla ignotincta ignotincta* Hodgson, 1837b. NHD 6/893

As in the preceding case Horsfield & Moore (1854: 366) did not list a McClelland specimen from Assam and we should not be surprised that the Natural History Museum does not hold a type specimen.

A14 *Melanochlora sultanea sultanea* Hodgson, 1837b⁴⁷. NHD 6/894

The identity is not in doubt, but there appears to be some reason to doubt whether we are calling this species by the correct scientific name⁴⁸. Two names are in contention, and they relate to two recognised subspecies. Whether the specific name should be *Melanochlora sultanea* or *Melanochlora flavocristata* has not been satisfactorily resolved.

Horsfield (1840) employed the name *Parus flavocristatus* Lafresnaye, 1837, as did Blyth (1852: 102). Horsfield (1840) thought *Parus sultaneus* Hodgson dated from April, 1837, and Lafresnaye's name *flavocristatus*, the Sumatran form, from January, 1837⁴⁹. However, Horsfield & Moore (1854: 369) used *Parus sultaneus* Hodgson, 1836, as did Jerdon (1863: 282). Blyth (1875: 111) who reverted to *flavocristatus* was not followed by Gadow (1883: 6)⁵⁰ or by Oates (1883: 129; 1889: 241) or Baker (1930a: 18) except that, like Horsfield & Moore, he dated *sultanea* from 1836. Snow (1967: 122) gave 1837 as well as "(1838)", a style that usually implies that the volume year was 1837 and that publication was in 1838. Warren & Harrison (1971: 543) used 1838.

My best information is that Hodgson's paper appeared spread over two issues of the *India Review*, with pp. 30-34 out in 1837 (Hodgson's description of *sultaneus* was on p. 31), and 87-90 probably out in 1838. There is a general acceptance that pp. 445-447 of Vol. 1 (another Hodgson article) was delayed until 1837 and the first pages of the 1837 volume (Vol. 2) presumably came out after that. At first sight it appears that Horsfield was correct and that Lafresnaye published first. However, the 1837 volume

⁴⁷ This name is corrected in the body of the text.

⁴⁸ It is also possible that this was actually collected by Griffith at Culleyang [in Burma] on 22 March 1837 (Griffith, 1847: 75) and, judging by Griffith's comments, the same might be true of *Oriolus traillii* listed as No. 43 by Horsfield (1840) for which there was no drawing and which Horsfield & Moore (1854: 273) did not list in the context of Assam. The Griffith specimen given as from Afghanistan might relate to this, but a previous owner of my copy of Horsfield & Moore has deleted Afghanistan and entered 'Dehra Doon, i-ii, 1841'.

⁴⁹ This date also appeared on the Richmond cardex (A.P. Peterson, pers. comm.).

⁵⁰ Gadow (1883) erroneously dated *Parus sultaneus* Hodgson as 1831.

of the *Magazin de Zoologie* contained a note by Guérin-Méneville, dated 1 September, 1838, stating that publication of the 1837 year was delayed. I have not traced the extent of the delay, but I consider that this must have been discovered in or before 1854, and that without firm evidence to the contrary it is better to maintain current usage for the specific name *sultanea* instead of *flavocristata*.

A15 *Upupa epops ceylonensis* Reichenbach, 1853? NHD 6/897-898

Horsfield (1840) found McClelland's specimens [sic] 'rather smaller' than European specimens and on this basis the size suggests that *ceylonensis* is involved here and not the nominate form, nor the northern and Himalayan form *saturata*.

A16 *Jynx torquilla* subsp.? NHD 6/907

Horsfield (1840) saw no difference between the specimens collected by McClelland and European specimens. Judging from Ripley (1982) of the three subspecies known from India the European race is the least likely to occur in Assam.

Comments on some drawings apparently not seen by Horsfield (1840)

B. Drawings which have original numbers

Horsfield (1840) ignored drawings that depict another 27 species (see Appendix 2: part B, species nos. 70-96). I believe these and any related specimens were put aside by Horsfield because work on this part of the collection at East-India House had not begun. This I infer mainly from the fact that the *Catalogue of Horsfield & Moore* (1854, 1856-58) was never completed, and from the groups that these authors did not complete.

B1 *Treron apicauda* Blyth, 1846a. (Original no. 62 upper image; NHD 6/931)

This is a very distinct species and had Horsfield seen this by 1839 he would no doubt have named this as new, by not doing so he failed to give full credit to McClelland.

B2 *Columba punicea* Blyth, 1842b. (Original no. 62 lower image; NHD 6/931)

As in the case of B1 Horsfield would have appropriately described this as new had he seen this in 1839.

B3 *Treron pompadora phayrei* (Blyth, 1862). (Original no. 63; NHD 6/933)

In 1839 this species was known from Ceylon and more northern populations had not yet been differentiated; this form might have been described by Horsfield (1840) had he seen the evidence. The drawing is dated Jan. 1837 and is marked with the original number 63.

B4 *Charadrius dubius jerdoni* (Legge, 1880)? (Original no. 65 lower image; NHD 6/937)

The lower image in this drawing is a ringed plover. It is almost certainly *Charadrius dubius jerdoni* (Legge, 1880), however the head pattern is not quite right as a white line between the grey-brown crown and the black through the eye is absent. The legs appear to be coloured pale pink, which ought to rule out alternative species.

C/D. Drawings which do not have original numbers and seem to post-date the original expedition; some are not, and others may not be, from Assam

Identifiable images

C1 *Zoothera marginata* Blyth, 1847a. NHD 6/846

This is depicted in NHD 6/846 from the retained set. This line drawing is well executed and probably done from life. The decurved bill, scalloped rather than spotted underparts and relatively short tail all suggest that the pencilled identification⁵¹ added to the drawing is correct. Reference to Blyth (1847a) makes clear that Blyth saw this drawing and identified with it the specimen from Arakan to which he gave the name. He also says that McClelland procured the depicted bird in Assam. If the type of *Zoothera marginata* is no longer extant in Calcutta then the subject of this drawing should be designated as the lectotype, giving significant extra scientific value to the drawing.

C2 *Lonchura punctulata subundulata* (Godwin-Austen, 1874). NHD 6/868

This drawing is not from the first set of drawings. Nor does it depict either of the two munias listed in 1840: *Lonchura melanocephala* Horsfield, 1840 - a synonym of *Lonchura malacca atricapilla* (Vieillot, 1807) - and *Lonchura cheet* Sykes, 1832, which is identifiable with *Lonchura malabarica* (Linnaeus, 1758) according to Baker (1930a: 222). This image is of *Lonchura punctulata subundulata* (Godwin-Austen, 1874). A photograph of this plate was sent to Robin Restall, who kindly confirmed the identity.

Horsfield & Moore (1854: 506) listed *Munia undulata* Latham from Assam on the basis of a specimen from McClelland.

C3 *Spilornis cheela cheela* (Latham, 1790). NHD 6/869

Although one of the McClelland drawings supposedly associated with Assam, this bird may have been depicted based on a McClelland specimen from Bengal which went to the Company's museum (Horsfield & Moore, 1854: 51).

⁵¹ Although not initialled this seems to be in Blyth's writing as might be expected from the history above.

C4 *Parus spilonotus* subsp. NHD 6/871

This image (colour plate 4), from the retained set, is evidently of a titmouse and has been annotated 'Parus griffithii Blyth (type)' and 'Griffith, Journal between Assam and Ava, 1837'⁵². Ava was both the capital and name of the kingdom of Burma, or rather then ruling Upper Assam and much of what has since been called Burma. Blyth mentioned that the subject of the drawing was crestless.

Blyth (1847b) established the name *Parus griffithii* based on "a drawing of a bird obtained by the late Dr. Griffith between Assam and Ava". I have no doubt that this is that drawing⁵³, but who painted it and when is unclear. It was probably left to McClelland by Griffith after the latter's death in 1845. The two had been together on the Assam expedition in 1836⁵⁴ and McClelland edited Griffith's journal.

The name *Parus griffithii* was associated with *Parus xanthogenys* by Gadow (1883) but there are two species that are rather similar and in those days the specific limits were not clearly understood. It was associated with *Parus spilonotus* by Baker (1930a: 15), although with apparent hesitation. The painting is not a good rendering, but judging from its black forehead and from its spotted back is apparently a form of *spilonotus* (M. Walters *in litt.*). The lack of a black centre to the belly suggests a young bird, which could well have been crestless, or sufficiently so to have been drawn like this.

C5 *Sasia ochracea reichenowi* Hesse, 1911. NHD 6/910 (upper image)

Two subspecies occur in India and McClelland could have collected the nominate form (*ochracea* Hodgson, 1837a) when near Sadiya, or *reichenowi* Hesse, 1911⁵⁵ when in the hills of Assam, such as the Khasi Hills. Horsfield & Moore (1854: 678) listed the drawing as from Assam, but no specimen. The drawing is closer to *reichenowi*.

C6 *Polyplectron bicalcaratum bicalcaratum* (Linnaeus, 1758). NHD 6/924

This drawing is in a different style to those done in Assam. The bird depicted is sandier than the Himalayan race (*bakeri* Lowe, 1925) and almost certainly from Burma. Like the next form discussed below this looks like a drawing that originated on one of Griffith's two trips from Assam to Ava⁵⁶ that came to McClelland on the death of his friend Griffith in 1845. Lowe (1925) did specify that birds from both Sadiya and the Khasi Hills could be assigned to the grey Himalayan form *bakeri*.

⁵² The journal about this trip seems to have become part of *Journals of travels in Assam, Burma, Bootan, Afghanistan and the neighbouring countries ...* (1847), published posthumously in 2 volumes and edited by McClelland (Archer, 1962: 42).

⁵³ Archer (1962: 87) said that it was the type drawing but I think she wrongly supposed that it had been taken on the 1836 expedition. Blyth, from his annotation, showed it was later.

⁵⁴ See Horsfield (1840) in comments on *Parus flavocristatus*.

⁵⁵ Treated here, following Ripley (1982: 227), as subsuming *querulivox* Baker, 1926. This may need review as *querulivox* seems distinct.

⁵⁶ Archer (1962: 44) reported that 'after the expedition to Assam, Griffith crossed the unexplored Mishmi Mountains between Sadiya and Ava collecting insects, and then made a second expedition from Assam to Ava travelling down the Irrawaddy to Rangoon'.

C7 *Lophura leucomelana lineata* (Vigors, 1831). NHD 6/928

This drawing is also in a different style to those done in Assam and this subspecies does not occur there. It is found in Burma to the east of the Irrawaddy and east to the Sittang river. I believe this to be the drawing that was published by McClelland (1841), in a poor reproduction, in conjunction with the description of a new pheasant: *Phasianus fasciatus*. McClelland thought it to have come from Arrakan, but perhaps it originated east of the Irrawaddy. In Appendix 2 I have signalled that the type of *Phasianus fasciatus* McClelland is extant (Warren, 1966: 95).

Image, without descriptions, not identified

D1 ? *Actinodura* sp. ? NHD 6/866

This probably depicts a species of barwing, but it could perhaps be a poor representation of something else altogether! I do not believe this is safely identifiable to species.

Taxa described by Horsfield (1840) for which no drawing has been located

E1 *Emberiza aureola aureola* Pallas, 1773

Horsfield (1840) described *Mirafra flavicollis* which has been listed as a synonym of *Emberiza aureola aureola* Pallas, 1773 (Baker, 1930a: 249).

E2 *Lonchura malacca atricapilla* (Vieillot, 1807)

Horsfield (1840) described *Lonchura melanocephala*, a name listed as a junior synonym of *Lonchura malacca atricapilla* (Vieillot, 1807) (Baker, 1930a: 221).

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⁵⁸ The volume title is 1834, but the dates of the early livraisons are known.

⁵⁹ On p. 511 in the sections entitled 'Ornithological Observations' an editorial note reads "Previously sent to the Quarterly of the Medical and Physical Society but was printed for that journal with numerous inaccuracies.... although due 1st. October last has not yet appeared.may first appear in our review [or] at least simultaneously with the Quarterly." Horsfield (1840) dated the Quarterly as Dec. 1837. The India Review is almost certainly November: the next issue of the India Review however, dated 15 Dec. 1837, carried a note from Hodgson identifying both McClelland's new birds.

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⁶¹ Headings of these papers varied slightly, see McAllan & Bruce (2002).

⁶² I have not worked with the published edition of 1969.



Colour plate 1: NHD 6/825. Two minivets named *Phœnicornis affinis* McClelland in Horsfield (1840).



Colour plate 2: NHD 6/879. *Timalia pileata* as depicted in the McClelland drawings. Here thought to be *Stachyris rufifrons ambigua* (Harington, 1915).

APPENDIX 1

Species not listed by Horsfield (1840), with no drawing, for which McClelland specimens were reported by Horsfield & Moore (1854, 1856-58) (these 21 species are not included in Appendix 2 herewith)

The species in this section are given in the sequence used by Ripley (1982). Some of the specimens are probably now in the Natural History Museum, Tring, but the main focus of this paper is the drawings and I have not attempted to locate the specimens. I have preferred not to give subspecific names; these would be even more conjectural than those used in the main paper. Nor have I attempted to explain the old synonyms that appear in Horsfield & Moore (1854, 1856-58).

Accipiter badius (Gmelin, 1788)

Horsfield & Moore (1854: 39) listed *Micronisus badius* Gmelin, from Assam on the basis of a specimen from McClelland.

Bubo zeylonensis (Gmelin, 1788)

Horsfield & Moore (1854: 78) listed *Ketupa ceylonensis* Gmelin, from Assam on the basis of a specimen from McClelland. That form is now considered a Sri Lankan endemic, with a mainland subspecies.

Caprimulgus macrurus Horsfield, 1821

Horsfield & Moore (1854: 112) listed *Caprimulgus macrourus* Horsfield, 1821, from Assam on the basis of two specimens from McClelland and, in addition (1854: 389) listed *Caprimulgus albonotatus* Tickell, from Assam on the basis of two specimens from McClelland (perhaps the same two specimens)⁶³.

Caprimulgus asiaticus Latham, 1790

Horsfield & Moore (1854: 115) listed *Caprimulgus asiaticus* Latham, from Assam on the basis of a specimen from McClelland.

Cypsiurus parvus (Lichtenstein, 1823)

Horsfield & Moore (1854: 109) listed *Cypselus batassiensis* J.E. Gray, 1829, from Assam on the basis of a specimen from McClelland. The 'corrected' spelling *batassiensis* that they used, sometimes wrongly said to have been introduced by Baker (1927: 336), has since been rejected in favour of *balasiensis* (Ripley, 1982: 201).

⁶³ Horsfield in Horsfield & Moore (1854) evidently did not appreciate the distinctions, now considered subspecific. The content of the Appendix suggests that recognition was considered due and that the need to correct page 112 was overlooked.

***Micropternus brachyurus* (Vieillot, 1818)**

Horsfield & Moore (1854: 667) listed *Micropternus phaiiceps* Horsfield & Moore, 1854, from Assam on the basis of a female specimen from McClelland.

***Acridotheres fuscus* (Wagler, 1827)**

Horsfield & Moore (1854: 538) listed *Acridotheres fuscus* from Assam on the basis of two specimens from McClelland.

***Tephrodornis pondicerianus* (Gmelin, 1789)**

Horsfield & Moore (1854: 170) listed *Tephrodornis pondiceriana* Gmelin Assam on the basis of a specimen from McClelland.

***Pericrocotus roseus* (Vieillot, 1818)**

In the discussion above (A3) it was explained that Blyth (1846b) had thought that the lower image in NHD 6/826 was *Pericrocotus roseus*. On this basis Horsfield & Moore (1854: 141) listed the McClelland drawing of female *affinis* as a drawing of *roseus*. The format of this listing may or may not mean that there was also a specimen. On p. 418 (August 1854) the author(s) believed it did, for they then reassign the listing of the synonym and the specimen to *Pericrocotus solaris* saying "vide App. p. 393" (July 1854) where we have a species account for *P. solaris* with the synonym shown - but the reassigned specimen is not listed. After that they say "Add specimens d.e. female. Assam." There can be no doubt that these two specimens were seen to be genuine *P. roseus*. However, there is no indication that these have been transferred from listing elsewhere, which is curious.

***Turdoides caudatus* (Dumont, 1823)**

Horsfield & Moore (1854: 223) listed *Malacocircus caudatus* Duméril [sic] from Assam on the basis of a specimen from McClelland. The nomenclature of the birds in this genus has been widely muddled and it may be doubted whether, in this instance, Horsfield & Moore dealt with a specimen of the same taxon we now call *Turdoides caudatus*. If they did, and if this was indeed from Assam, this would slightly extend the known range of this form.

***Pteruthius flaviscapis* (Temminck, 1836)**

Horsfield & Moore (1854: 172) listed *Pteruthius erythropterus* Vigors, 1831, from Assam on the basis of a female specimen from McClelland.

***Muscicapa parva* Bechstein, 1794**

Horsfield & Moore (1854: 298) listed *Erythrosterina leucura* Gmelin, 1789, from Assam on the basis of a female specimen from McClelland.



Colour plate 3: NHD 6/885. The drawing showing *Saxicola ? olivea* McClelland (lower figure). See Appendix 2. For details of all four birds depicted see Appendix 1.



Colour plate 4: NHD 6/871. The painting on which, in part, Blyth (1847b) based his description of *Parus griffithii*. Probably an immature *Parus sibilans* subsp.?

***Acrocephalus stentoreus* (Ehrenberg, 1833)⁶⁴**

Horsfield & Moore (1854: 332) listed *Acrocephalus brunnescens* (Jerdon, 1839) from Assam on the basis of a specimen from McClelland.

***Phylloscopus cantator* (Tickell, 1833)**

Horsfield & Moore (1854: 338) listed *Abroscopus cantator* (Tickell) from Assam on the basis of a specimen from McClelland.

***Erithacus calliope* (Pallas, 1776)**

Horsfield & Moore (1854: 313) listed *Calliope camtschatkensis* Gmelin, 1789, from Assam on the basis of a male specimen from McClelland.

***Motacilla indica* Gmelin, 1789**

Horsfield & Moore (1854: 353) listed *Motacilla indica* Gmelin from Assam on the basis of a specimen from McClelland.

***Motacilla flava* Linnaeus, 1758**

Horsfield & Moore (1854: 351) listed *Motacilla viridis* Gmelin, 1789, from Assam on the basis of a specimen from McClelland. It is apparent that this account includes at least two subspecies and it is not certain which the Assam specimen would have been.

***Motacilla citreola* Pallas, 1776**

Horsfield & Moore (1854: 352) listed *Budytes citreola* Pallas from Assam on the basis of two specimens from McClelland.

***Motacilla alba* Linnaeus, 1758**

Horsfield & Moore (1854: 349) listed *Motacilla luzoniensis* Scopoli, 1786, from Assam on the basis of two specimens from McClelland.

***Nectarinia zeylonica* (Linnaeus, 1766)**

Horsfield & Moore (1854: 741) listed *Leptocoma zeylonica* from Assam on the basis of a specimen from McClelland.

***Lonchura striata* (Linnaeus, 1766)**

Horsfield & Moore (1854: 511) listed *Munia acuticauda* Hodgson, 1836, from Assam on the basis of a specimen from McClelland.

⁶⁴ More correctly Hemprich & Ehrenberg or Hemprich & Ehrenberg in Ehrenberg, 1833. ECD.

APPENDIX 2

An analysis of Horsfield (1840) and the related McClelland drawings

Explanatory notes:

- a This column provides a running count to the number of identifiable species reported from Assam by Horsfield (1840) combined with the drawings.
- b The number in this column, when there are two or more copies of the same image, is that appearing to be the number that is from the first set.
- c Other drawing numbers, applicable to copies apparently not from the first set.
- d The "Original" No. apparently given by McClelland, but only found on drawings (in both sets) that seem certain to be from 1836-37. The following abbreviations appear: L = lower; LL = lower left; LR = lower right; M = middle; U = upper; UL = upper left; UR = upper right.
- e The sequence number of the species in the account of Horsfield (1840).
- f Name used by Horsfield (1840) including his citation details. Names in bold proposed as new in Horsfield (1840). H means credit to Horsfield. All other names should be credited to McClelland.
- g Whether one type specimen or more has been located in the Natural History Museum, Tring.
- h Name used, to subspecies level, in "A synopsis of the birds of India and Pakistan" (second edition), by S.D. Ripley (1982), but with authorship corrected in respect of Horsfield, 1840, versus McClelland, 1840.
- j On this page will be found any mention of McClelland's material. The species account may begin on a preceding page.
- k Number of specimens apparently present. When this applies to type material the number is given in bold.
- l Whether a drawing is listed or not.
- m The symbols used here relate to sections of text in the main text of this paper.

| A. DRAWINGS THAT CAN BE RELATED TO HORSFIELD (1840) | | | | | | | | | | For notes a to h and j to m see top of table | | | |
|---|-------------|---------------|--------------|----------------------|--|------------|---|--------|---------|--|--------|-------------------|--|
| Sp. No. | Drawing No. | Dupl. or Nos. | No. Original | No. Horsfield (1840) | Name of species as used by Horsfield (1840) | Type found | Identity of taxon as given by Ripley (1982) | page j | specs k | Horsfield & Moore | draw l | Cross reference m | |
| a | b | c | d | e | f | g | h | j | k | | l | m | |
| 1 | 811 | 812 | 4 | 4 | <i>Falco interstinctus</i> McClelland | Y | <i>Falco tinnunculus interstinctus</i> McClelland, 1840 | 13 | 1 | | Y | | |
| 2 | 813 | 814 | 5 | 1 | <i>Haliaeetus. Macei</i> Temm. Pl. Col. Pl. 8. | | | 55 | 2 | | Y | | |
| 3 | 815 | n/a | 6 | 3 | <i>Spiz[actus]. rufifluctus</i> McClelland | Y | <i>Accipiter irroratus indicus</i> (Hodgson, 1836) | 42 | 1 | | Y | | |
| 4 | 816 | 817 | 7 | 5 | <i>Circ. melanoleucus. Falco melanoleucus</i> , Gmel. Linn. I. 274 | | <i>Circus melanoleucus</i> (Pennant, 1769) | 27 | 1 | | Y | | |
| 5 | 818 | n/a | 8 U | 45 | <i>Iaxos monticola</i> Horsfield | Y | <i>Pycnonotus jocosus monticola</i> (McClelland, 1840) | 239 | 1 | | Y | A1 | |
| 6 | 818 | n/a | 8 L | 38 | <i>Graucalus maculosus</i> McClelland | Y | <i>Corcinna m. melaschistos</i> (Hodgson, 1836) | 177 | 2 | | Y | | |
| 7 | 820 | 819 | 9 | 48 | <i>Geocichla Rubecula</i> , Gould, Proceed. Zool. Soc. 1836, p. 7. | | <i>Zoothera c. citrina</i> (Latham, 1790) | 190 | 1 | | Y | | |
| 8 | 821 | 822 | 10 | 25 | <i>Rhipidura fuscoventris</i> Frankl. Proceed. Zool. Soc. 1831, 117 | | <i>Rhipidura albicollis stamleyi</i> Baker, 1916 | 145 | 3 | | Y | | |
| 9 | 823 | 824 | 11 L | 19 | <i>Phenicornis princeps. Muscipeta princeps</i> , Gould's Cent. Of Himal. Birds. Pl. VII. | | <i>Pericrocotus flammeus spectosus</i> (Latham, 1790) | 143 | 1 | | Y | A2 | |
| 9 | 823 | 824 | 11 M | 21 | <i>Phenicornis elegans</i> Horsfield | Y | <i>Pericrocotus flammeus spectosus</i> (Latham, 1790) | 143 | ? | | Y | A2 | |
| 10 | 823 | 824 | 11 R | 20 | <i>Phenicornis breivrostris. Muscipeta . breivrostris</i> , Gould's Cent. Pl. VIII. The male | | <i>Pericrocotus b. breivrostris</i> (Vigors, 1831) | 141 | '2' | | Y | A2 | |
| 10 | 825 | 826 | 12 U | 22 | <i>Phenicornis affinis</i> McClelland male | Y | <i>Pericrocotus b. breivrostris</i> (Vigors, 1831) | 141 | 2 | | Y | A3 | |
| 11 | 825 | 826 | 12 L | 22 | <i>Phenicornis affinis</i> McClelland female | | see the present article | 141 | '2' | | Y | A3 | |
| 12 | 827 | 828 | 13 | 29 | <i>Dicrurus Rangoonensis. Edolius Rangoonensis</i> , Gould, Proceed. Zool. Soc. 1836, p. 5. | | <i>Dicrurus renifer tectirostris</i> (Hodgson, 1836) | 157 | 1? | | Y | A4 | |
| 13 | 829 | 830 | 14 | 28 | <i>Dicrurus grandis. Edolius grandis</i> , Gould, Proceed. Zool. Soc. 1836, p. 5. | | <i>Dicrurus paradiseus grandis</i> (Gould, 1836) | 156 | 1? | | Y | A4 | |
| 14 | 833 | 832 | 15 | 31 | <i>Dicrurus aeneus</i> , Vieill. Enc. Meth. Ornith., 751. | | <i>Dicrurus aeneus</i> Vieillot, 1817 | 160 | 1 | | N | A5 | |
| 15 | 835 | 834 | 16 | 44 | <i>Irena Puella</i> , Horst., Linn. Trans., XIII. p. 153. | | <i>Irena p. puella</i> (Latham, 1790) | 273 | 1 | | Y | | |
| 16 | 836 | 837 | 17 | 33 | <i>Collurio nigriceps</i> , Frankl., Proceed. Zool. Soc. 1831, p. 117. | | <i>Lanius schach tricolor</i> (Hodgson, 1837) | 166 | 1 | | Y | | |
| 17 | 839 | 838 | 18 | 13 | <i>Eurghlaimus lunatus</i> Gould, Trans. Zool. Soc. of London, I. 175 | | <i>Serilophus lunatus rubropygius</i> (Hodgson, 1839) | 119 | 4 | | Y | | |

| Sp. No. | Drawing number | Dupl. or Nos. | Original No. | Horsfield No. | Name of species as used by Horsfield (1840) | Type found | Identity of taxon as given by Ripley (1982) | page | Horsfield & Moore specs | draw | Cross reference |
|---------|----------------|---------------|--------------|---------------|--|------------|---|------|-------------------------|------|-----------------|
| a | b | c | d | e | f | g | h | j | k | l | m |
| 37 | 881 | 880 | 34 L | 27 | <i>Artamus leucorhynchus</i> , Vieill. <i>Lanius leucorhynchus</i> , Linn. Mantis (1771), p. 524. | Y | <i>Artamus fuscus</i> Vieillot, 1817 | 161 | 1 | Y | |
| 38 | 883 | 882 | 35 | 67 | <i>Dendrocitta frontalis</i> Horsfield | Y | <i>Dendrocitta f. frontalis</i> Horsfield, 1840 | 570 | 1 | Y | |
| 39 | 884 | 884 | 36 UL | 96 | <i>Dicaeum erythronotum</i> , <i>Certhia erythronotos</i> , Ind. Orn. 1. 290. | | <i>Dicaeum c. cruentatum</i> (Linnaeus, 1758) | 748 | 1 | Y | |
| 40 | 884 | 884 | 36 UR | 93 | <i>Cinnyris labecula</i> Horsfield | N | <i>Aethopyga siparaja labecula</i> (Horsfield, 1839 (1840)) [sic] | 732 | 1 | Y | A11 |
| 41 | 884 | 884 | 36 LL | 92 | <i>Cinnyris Assamensis</i> Horsfield | Y | <i>Aethopyga saturata assamensis</i> (McClelland, 1839) [sic] ! | 736 | 2 | Y | |
| 42 | 884 | 884 | 36 LR | 94 | <i>Arachnothera inornata</i> Temm., Pl. Col. LXXXIV. Fig. 2 | | <i>Arachnothera m. magna</i> (Hodgson, 1836) | 727 | 1 | Y | |
| 43 | 885 | n/a | 37 UL | 26 | <i>Cryptolopha poiocephala</i> Sw., Nat. Libr. Ornith., Vol. X, p. 200. Pl. XXIII | | <i>Culicicapa ceylonensis calocorysae</i> Oberholser, 1923 | 148 | | Y | |
| 44 | 885 | n/a | 37 UR | 53 | <i>Zosterops Maderaspatanus</i> ? Catal. of Zool. Specim. Append. to Life of Sir T. S. Raffles, p. 661 | | <i>Zosterops p. pulpebrosa</i> (Temminck, 1824) | 264 | 1 | Y | |
| 45 | 885 | n/a | 37 M | 57 | <i>Leiothrix signata</i> McClelland | Y | <i>Muscicapa macgrigorinae signata</i> Horsfield, 1840 | 289 | 1 | Y | |
| 46 | 885 | n/a | 37 LR | 51 | <i>Saxicola ? olivacea</i> McClelland | N | <i>Tesia olivacea</i> McClelland in Horsfield, 1839 [sic] | 179 | [1] | Y | A12 |
| 47 | 887 | 886 | 38 | 95 | <i>Chloropsis chrysogaster</i> Horsfield female | Y | <i>Chloropsis h. hardwickii</i> Jardine & Selby, 1830 | 258 | 1 | Y | |
| 47 | 888 | 889 | 39 | 95 | <i>Chloropsis chrysogaster</i> Horsfield male | | <i>Chloropsis h. hardwickii</i> Jardine & Selby, 1830 | 258 | 1 | Y | |
| 48 | 890 | 891 | 40 | 87 | <i>Pomatorhinus montanus</i> Horsf., Linn. Trans., XIII, p.165. | | <i>Pomatorhinus horsfieldii</i> schisticeps Hodgson, 1836 | 234 | 1 | Y | |
| 49 | 893 | n/a | 41 U | 10 | <i>Hirundo brevis</i> Horsfield | Y | <i>Collocalia b. brevis</i> (Horsfield, 1840) | 100 | 1 | Y | |
| 50 | 893 | n/a | 41 M | 58 | <i>Leiothrix ornata</i> McClelland | N | <i>Minia i. ignotincta</i> Hodgson, 1837 | 366 | | | A13 |
| 51 | 893 | n/a | 41 L | 12 | <i>Hirundo brevicaudata</i> McClelland | Y | <i>Riparia paludicola chinensis</i> (J.E. Gray, 1830) | 96 | 1 | Y | |
| 52 | 894 | n/a | 42 | 55 | <i>Parus flavocristatus</i> , De Lafresnaye [sic], Guerin. Mag. Zool. Pl. 80. Janvier', 1837. | | <i>Melanochlora s. sultanea</i> (Hodgson, 1837) | 369 | 2 | Y | A14 |
| 53 | 896 | 895 | 43 U | 24 | <i>Muscicapa ? capitata</i> Horsfield | Y | <i>Hemipus plicatus capitata</i> (Horsfield, 1840) | 136 | 1 | Y | |
| 54 | 896 | 895 | 43 L | 54 | <i>Parus atriceps</i> Horsf., Trans. Linn. Soc. XIII. 160. | | <i>Parus major nipalensis</i> Hodgson, 1837 | 370 | 1 | Y | |
| 55 | 897 | 898 | 44 | 86 | <i>Upupa Epops</i> Linn. | | <i>Upupa epops ceylonensis</i> Reichenbach, 1853? | 724 | 1 | | A15 |

| Sp. No. | Drawing No. | Dupl. No. or Nos. | Original No. | Horsfield No. | Name of species as used by Horsfield (1840) | Type found | Identity of taxon as given by Ripley (1982) | page | Horsfield & Moore specs | draw | Cross reference |
|--|-------------|-------------------|--------------|---------------|---|------------|--|------|-------------------------|------|-----------------|
| a | b | c | d | e | f | g | h | j | k | l | m |
| 78 | 938 | 937 | 65 L | n/a | n/a | | <i>Charadrius</i> sp.? Probably <i>C. tibialis</i> subsp? | N/A | | | B4 |
| 79 | 942 | 943 | 66 | n/a | n/a | | <i>Ardea purpurca manilensis</i> Meyen, 1834 | N/A | | | |
| 80 | 944 | 945 | 67 | n/a | n/a | | <i>Grus grus tilfordi</i> Sharpe, 1894 | N/A | | | |
| 81 | 946 | 947 | 68 | n/a | n/a | | <i>Ardeola g. grayii</i> (Sykes, 1832) | N/A | | | |
| 82 | 948 | 949 | 69 | n/a | n/a | | <i>Ardeola striatus chloriceps</i> (Bonaparte, 1857) | N/A | | | |
| 83 | 950 | 951 | 70 | n/a | n/a | | <i>Leptoptilos javanicus</i> (Horsfield, 1821) | N/A | | | |
| 83 | 952 | n/a | 70 | n/a | n/a | | <i>Leptoptilos javanicus</i> (Horsfield, 1821) | N/A | | | |
| 84 | 953 | n/a | 71 | n/a | n/a | | <i>Leptoptilos dubius</i> (Gmelin, 1789) | N/A | | | |
| 85 | 954 | 955 | 72 | n/a | n/a | | <i>Ephippiorhynchus asiaticus</i> (Latham, 1790) | N/A | | | |
| 86 | 957 | 956 | 73 | n/a | n/a | | <i>Ciconia e. episcopus</i> (Boddaert, 1783) | N/A | | | |
| 87 | 958 | 959 | 74 | n/a | n/a | | <i>Anasiosus oscitans</i> (Boddaert, 1783) | N/A | | | |
| 88 | 961 | 960 | 75 | n/a | n/a | | <i>Threskiornis aethiopia melanocephala</i> (Latham, 1790) | N/A | | | |
| 89 | 965 | 964 | 76 | n/a | n/a | | <i>Tringa stagnatilis</i> (Bechstein, 1803) | N/A | | | |
| 90 | 967 | 966 | 77 | n/a | n/a | | <i>Amaurornis p. phoeniceus</i> (Pennant, 1769) | N/A | | | |
| 91 | 969 | 968 | 79 | n/a | n/a | | <i>Recurvirostra avosetta</i> Linnaeus, 1758 | N/A | | | |
| 92 | 971 | 970 | 78 | n/a | n/a | | <i>Glareola lactea</i> Temminck, 1820 | N/A | | | |
| 93 | 972 | 973 | 80 | n/a | n/a | | <i>Larus argentatus</i> subsp. | N/A | | | |
| 94 | 975 | 974 | 81 | n/a | n/a | | <i>Sterna aurantia</i> J.E. Gray, 1831 | N/A | | | |
| 95 | 976 | 978 | 82 | n/a | n/a | | <i>Phalacrocorax carbo sinensis</i> (Shaw, 1801) | N/A | | | |
| 96 | 980 | 979 | 83 | n/a | n/a | | <i>Tadorna ferruginea</i> (Pallas, 1764) | N/A | | | |
| C. DRAWINGS THAT LACK 'ORIGINAL NUMBERS' AND CANNOT BE RELATED TO HORSFIELD (1840). IDENTIFIED. | | | | | | | | | | | |
| 97 | 826A | n/a | n/a | n/a | n/a | | <i>Hypolimnitis azurea styani</i> (Hartlaub, 1898) | 139 | | | |
| 98 | 831 | n/a | n/a | n/a | n/a | | <i>Dicrurus h. hottentottus</i> Linnaeus, 1766 | 157 | | | |
| 99 | 846 | n/a | n/a | n/a | n/a | | <i>Zoothera marginata</i> Blyth, 1847 | 192 | | | C1 |
| 100 | 847 | n/a | n/a | n/a | n/a | | <i>Turdus ruficollis atrogularis</i> Jarocki, 1819 | 196 | | | |
| 101 | 848 | n/a | n/a | n/a | n/a | | <i>Hypsipetes flaculus</i> (Blyth, 1845) | 250 | | | |
| 102 | 849 | n/a | n/a | n/a | n/a | | <i>Copsychus s. saularis</i> (Linnaeus, 1758) | 275 | | | |
| 103 | 865 | n/a | n/a | n/a | n/a | | <i>Macronotus gularis rubricapilla</i> (Tickell, 1833) | 230 | | | |
| 104 | 867 | n/a | n/a | n/a | n/a | | <i>Spizococ c. canifrons</i> Blyth, 1845 | 251 | | | C2 |
| 105 | 868 | n/a | n/a | n/a | n/a | | <i>Lonchura punctulata subindulata</i> (Godwin-Austen, 1874) | | | | |
| 106 | 869 | n/a | n/a | n/a | n/a | | <i>Spilornis c. cheela</i> (Latham, 1790) | 51 | | | C3 |

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|---|-----|-----------------|
| 107 | 870 | n/a | n/a | n/a | n/a | <i>Pycnonotus melanicterus flaviventris</i> (Tickell, 1833) | 247 | |
| 108 | 871 | n/a | n/a | n/a | n/a | <i>Parus spilotoxus</i> subsp.? | | C4 |
| 109 | 892 | n/a | n/a | n/a | n/a | <i>Muscicapa sibirica cacabata</i> Penard, 1919 | 137 | |
| 110 | 910 | n/a | U | n/a | n/a | <i>Sasia ochracea</i> subsp.? Probably <i>S. o. reichenowi</i> Hesse, 1911. | 678 | Y ⁶⁶ |
| 111 | 910 | n/a | L | n/a | n/a | <i>Picus f. flavinucha</i> Gould, 1834 | 662 | Y ⁶⁷ |
| 112 | 924 | n/a | n/a | n/a | n/a | <i>Polyplectron b. bicaratum</i> (Linnaeus, 1758) | N/A | C6 |
| 72 | 925 | n/a | n/a | n/a | n/a | <i>Lophura leucomelana lathamii</i> (J.E. Gray, 1829) | N/A | |
| 72 | 928 | n/a | n/a | n/a | n/a | <i>Lophura leucomelana lineata</i> (Vigors, 1831) | N/A | |
| 113 | 939 | n/a | n/a | n/a | n/a | <i>Hydrophasianus chirurgus</i> (Scopoli, 1786) | N/A | C7 |
| 114 | 940 | n/a | n/a | n/a | n/a | <i>Metopidius indicus</i> (Latham, 1790) | N/A | |
| 115 | 941 | n/a | n/a | n/a | n/a | <i>Vanellus i. indicus</i> (Boddaert, 1783) | N/A | |
| 116 | 962 | n/a | n/a | n/a | n/a | <i>Mycteria leucocephala</i> (Pennant, 1769) | N/A | |
| 117 | 963 | n/a | n/a | n/a | n/a | <i>Ibidorhynchus struthersii</i> Gould, 1832 ⁸⁸ | N/A | |
| 96 | 977 | n/a | n/a | n/a | n/a | <i>Phalacrocorax carbo sinensis</i> (Shaw, 1801) | N/A | |
| 118 | 981 | n/a | n/a | n/a | n/a | <i>Nettapus coronamandelianus</i> (Gmelin, 1789) | N/A | |
| 118 | 982 | n/a | n/a | n/a | n/a | <i>Nettapus coronamandelianus</i> (Gmelin, 1789) | N/A | |

D. DRAWINGS THAT LACK ORIGINAL NUMBERS' AND CANNOT BE RELATED TO HORSFIELD (1840). UNIDENTIFIED.

| | | | | | | | | |
|-----|-----|-----|-----|-----|-----|--------------------------|--|----|
| 866 | n/a | n/a | n/a | n/a | n/a | <i>Actinodura</i> ? Sp.? | | D1 |
|-----|-----|-----|-----|-----|-----|--------------------------|--|----|

E. TAXA LISTED BY HORSFIELD (1840) THAT HAVE NO ASSOCIATED DRAWING

| | | | | | | | | |
|-----|----|----|----|----|----|---|-----|-----------------|
| 119 | 2 | 2 | 2 | 2 | 2 | <i>Haliastur i. indicus</i> (Boddaert, 1783) | 57 | |
| | | | | | | <i>Haliastur i. indicus</i> (Boddaert, 1783) | | |
| | | | | | | <i>Haliastur i. indicus</i> (Boddaert, 1783) | | |
| | | | | | | <i>Haliastur i. indicus</i> (Boddaert, 1783) | | |
| 120 | 6 | 6 | 6 | 6 | 6 | <i>Milvius migrans goevinda</i> Sykes, 1832 | 31 | |
| 121 | 7 | 7 | 7 | 7 | 7 | <i>Glaucidium cuculoides ausstrum</i> Ripley, 1948 | 66 | 1 |
| 122 | 8 | 8 | 8 | 8 | 8 | <i>Otus bakkamoena letitia</i> (Hodgson, 1836) | 71 | ? ⁶⁹ |
| 123 | 11 | 11 | 11 | 11 | 11 | <i>Hirundo javanica gutturalis</i> Scopoli, 1786 | 92 | |
| 124 | 15 | 15 | 15 | 15 | 15 | <i>Alcedo bengalensis</i> Gmelin, 1788 | 129 | 2 |
| 125 | 16 | 16 | 16 | 16 | 16 | <i>Ceryle rudis leucomelanura</i> Reichenbach, 1851 | 131 | |

| Sp. No. | Drawing No. | Dupl. No. | Original No. | Name of species as used by Horsfield (1840) | Type found | Identity of taxon as given by Ripley (1982) | page | Horsfield & Moore specs | draw | Cross reference | | |
|---------|-------------|-----------|--------------|--|------------|--|------|-------------------------|------|-----------------|---|---|
| a | b | c | d | e | f | g | h | i | j | k | l | m |
| 126 | | | 23 | <i>Muscicapa melanops</i> Vigors, Proceed. Zool. Soc. 1831, 171. Gould's Cent. Of Himal. Birds, Pl. VI | | <i>Muscicapa t. thalassina</i> Swinhoe, 1838 | 293 | | | | | |
| 127 | | | 30 | <i>Dicrurus baliassius</i> , Vieill. Enc. Meth. Ornith., 751. <i>Corvus baliassius</i> , Linn. Syst. I. p. 155 | | <i>Dicrurus adsimilis albirictus</i> (Hodgson, 1836) | 150 | | | | | |
| 128 | | | 34 | <i>Collurio erythronotus</i> , Vigors, Proceed. Zool. Soc. 1831, p. 42. | | <i>Lanius schach erythronotus</i> (Vigors, 1831) | 164 | | | | | |
| 129 | | | 43 | <i>Oriolus Traillii</i> . <i>Pastor Traillii</i> , Gould's Cent. Himal. Birds, Pl. XXXV. | | <i>Oriolus t. traillii</i> Vigors, 1832 | 272 | | | | | |
| 130 | | | 46 | <i>Iaxos Cafer</i> . <i>Turdus Cafer</i> , Linn. I. 295. | | <i>Pyrenonotus cafer bengalensis</i> Blyth, 1845 | 240 | 1 | | | | |
| 131 | | | 49 | <i>Motacilla variegata</i> , Steph. | | <i>Motacilla madraspatensis</i> Gmelin, 1789 | 348 | | | | | |
| 132 | | | 59 | <i>Mirafra Assamica</i> Horsfield | Y | <i>Mirafra assamica assamica</i> Horsfield, 1840 | 476 | 1 | | | | |
| 133 | | | 60 | <i>Mirafra flavicollis</i> Horsfield | Y | <i>Emberiza a. aureola</i> Pallas, 1773 | 488 | 2 | | E1 | | |
| 134 | | | 61 | <i>Ploceus Manyar</i> . <i>Fringilla Manyar</i> Horsf., Trans. Linn. Soc., XIII, p. 160. | | <i>Ploceus manyar peguensis</i> Baker, 1925 | 514 | 1 | | | | |
| 135 | | | 62 | <i>Lonchura melanocephala</i> Horsfield | Y | <i>Lonchura malacca atricapilla</i> (Vieillot, 1807) | 508 | 1 | | E2 | | |
| 136 | | | 63 | <i>Lonchura Cheet</i> Sykes, Proceed. Zool. Soc., 1832, p. 95. | | <i>Lonchura m. malabarica</i> (Linnaeus, 1758) | 509 | | | | | |
| 137 | | | 64 | <i>Pastor tristis</i> Temm. <i>Gracula tristis</i> , Lath., Ind. Orn., I. 190. | | <i>Acridotheres t. tristis</i> (Linnaeus, 1766) | 533 | 1 | | | | |
| 138 | | | 69 | <i>Kitia venatorius</i> Gray, Illustrations of Indian Zoology, I. pl. XXIV. | | <i>Cissa c. chinensis</i> (Boddaert, 1783) | 576 | | | | | |
| 139 | | | 70 | <i>Coracias affinis</i> Horsfield | Y | <i>Coracias benghalensis affinis</i> Horsfield, 1840 | 574 | 2 | | | | |
| 140 | | | 71 | <i>Gracula religiosa</i> , Linn. Syst., I, p. 164. | | <i>Gracula religiosa intermedia</i> A. Hay, 1844 | 524 | | | | | |
| 141 | | | 75 | <i>Palaearnis torquatus</i> Vigors | | <i>Psittacula krameri borealis</i> (Neumann, 1915) | 612 | | | | | |
| 142 | | | 76 | <i>Palaearnis Pondicerianus</i> Vigors | | <i>Psittacula alexandri fasciata</i> (P.L.S. Müller, 1776) | 622 | | | | | |
| 143 | | | 80 | <i>Picus occipitalis</i> , Gould's Cent. of Himal. Birds, Pl. XLVII | | <i>Picus canus hessei</i> Gylstenstolpe, 1916 | 661 | 1 | | | | |
| 144 | | | 82 | <i>Picus Macei</i> , Temm. Pl. Col. LIX. | | <i>Picoides m. macei</i> (Vieillot, 1818) | 672 | 2 | | | | |

⁶⁵ 2 drawings.

⁶⁶ Page 678 appeared after McClelland's 1856 donation of the second set of drawings.

⁶⁷ Page 662 appeared after McClelland's 1856 donation of the second set of drawings.

⁶⁸ For the use of Gould, 1832 instead of Vigors see McAllan & Bruce (2002).

⁶⁹ A specimen from Assam ex Griffith.

APPENDIX 3

Designation of a neotype for *Tesia olivea* (McClelland, 1840)

M.P. Walters⁷⁰

The original description of *Tesia olivea* (McClelland, in Horsfield, 1840) read "A minute species, olive-green above, leaden-blue beneath, and olive-yellow on the forehead; anterior toes short; tarsi elevated. Length three inches." Horsfield's accompanying diagnosis was shorter yet: "Suprà olivaceo-viridis, subtùs ex plumbeo cæulescens; fronte flavicante".

Horsfield stated that a single specimen had been forwarded. This was presumably the type. The collections of the Honourable East-India Company were passed to the British Museum, but this type specimen has not survived (Kinnear in Ludlow, 1937). Horsfield & Moore (1854: 179) placed the name in synonymy and identified this with *Tesia cyaniventer* Hodgson, 1837d. It remained in synonymy in Baker (1922: 464; 1930: 95).

The possibility that there were two distinct species has generally been considered proved since Ludlow (1937: 256-261). The previous view, that there were two colour phases, was belied by his evidence that the two forms had differing altitudinal ranges. What he called a pale bird had been found in temperate forest between 6000 and 8000 ft, his dark birds were obtained in tropical forest at or below 3000 ft. He suggested that proof that these were two species would only come with evidence from the breeding season but he showed that the distinctions were not related either to the sex of the specimens or to the season of collecting. His pale form was *cyaniventer* and he used the name *olivea* for the dark form. That he did so was based on the notes inserted by Kinnear. Kinnear (in Ludlow, 1937: 259) referred to the dark bird with a "green head and pale grey below" and to the pale bird as "one with golden crown and dark grey underside".

Kinnear said that "Hodgson's type [of *cyaniventer*] is still in the British Museum, but McClelland's bird, which was in bad condition, no longer exists, though there is a coloured figure of it among his [McClelland's] unpublished drawings in the India Office". Kinnear did not confirm that he had looked at this drawing. I have searched the general collection and the specimen is not to be found in the trays of *Tesia olivea* or *Tesia cyaniventer*.

The International Code of Zoological Nomenclature (Art. 72.4.1, ICZN, 1999: 76) considers that the type series is composed of specimens. The type of *Saxicola ? olivea* has apparently perished. It is sometimes appropriate to designate as the lectotype a specimen that has been depicted but is no longer extant. Although there is a very general reference in Horsfield (1840: 147) to drawings received at India House with the collection there are only two casual references to such drawings within the body of the text of the whole paper, neither reference touches on *Saxicola ? olivea*. The paper gives the reader the impression that the descriptions given are taken from specimens. It is quite possible

⁷⁰ c/o. The Natural History Museum, Akeman Street, Tring, Herts. HP23 6AP

that the specimen depicted by McClelland and listed by Horsfield & Moore (1854), the putative type, was correctly identified by them as *Tesia cyaniventer*.

The drawing is clearly marked *Saxicola olivea* in Indian ink and tends to substantiate the probability that it was rightly synonymised with *Tesia cyaniventer*, but neither the drawing nor the original description completely eliminates the possibility that the darker *Tesia olivea* was depicted, rather badly. The Assam delegation seems to have gone no higher than about 4000 to 5000 feet in the Khasi Hills (Griffith, 1847)⁷¹ but may have climbed higher in the Naga Hills. An elevation limited to 5000 feet would, in the breeding season, be more likely to produce *Tesia olivea*.

The identification of the drawing with *Tesia cyaniventer* and the designation of the specimen underlying this drawing as a lectotype would confirm the place of *Tesia olivea* as a synonym of *Tesia cyaniventer*. This would require that a new name be provided for *Tesia olivea*⁷². In the circumstances, and taking into account the usage of the name *Tesia olivea* since 1937, it seems undesirable to jump to conclusions that cannot be fully substantiated.

As the name *olivea* has been used for the dark sibling species ever since Ludlow (1937) the pursuit of nomenclatural stability requires that the name be maintained in that context. In this case designating the bird depicted in the plate as a lectotype would be mistaken as the identity remains in doubt.

I therefore designate BMNH 1942.WHI.1.5372 an adult male collected on 16 November 1902 by H. Stevens at Margherita, Upper Assam as the neotype of *Saxicola ? olivea* McClelland, 1840. This specimen, clearly identifiable with the dark form discussed by Kinnear, came from the Whistler collection. This designation is expressly intended to clarify the taxonomic status of this nominal taxon and to maintain its identity as recently understood. Dickinson (above) has discussed the itinerary of the Assam Deputation, which is known to have spent time at Sadiya (27°50'N., 95°40'E.); Margherita is at 27°17'N., 95°41'E., and was perhaps near to the route taken on the expedition into the Naga Hills.

⁷¹ A rather sketchy itinerary can be found in chapter 1 of Griffith (1847-1848). In a later chapter where he gives details of elevations he is writing of a second visit to the Khasi hills the following cool season.

⁷² There is apparently no available synonym.