Taxonomic identities of Psittacula cyanopygia Souancé, 1856, Pachycephala clio Wallace, 1863, and Lagonosticta brunneiceps Sharpe, 1890, fixed through designation of lectotypes held in the Natural History Museum, Tring

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Summary.—During ongoing work in the Natural History Museum, Tring, bird collections to identify and segregate syntype material, three cases have been identified where it is necessary to objectively define the relevant taxa. The first of these is the Mexican Parrotlet *Forpus cyanopygius* (Souancé, 1856), of which the male and female syntypes are identifiable as different species, with the female being a specimen of Cobalt-rumped Parrotlet *F. xanthopterygius*. Although some authors have suggested that the type material of *F. cyanopygius* is from the Tres Marías Islands, off western Mexico, and thus referrable to *F. cyanopygius insularis*, we demonstrate that the male syntype (now lectotype) can be confidently identified as being from the Mexican mainland, obviating the need for any nomenclatural revision. The second case involves *Pachycephala clio* Wallace, 1863, currently treated as a subspecies of Moluccan Whistler *P. macrorhyncha*, which was described from specimens collected in the Sula Islands and on Buru. Subsequently, *Pachycephala melanura buruensis* E. Hartert, 1899, now also a subspecies of *P. macrorhyncha*, was named from specimens collected exclusively on Buru, but without unambiguously restricting Wallace's nomen to the Sula Islands. The final case pertains to *Lagonosticta brunneiceps* Sharpe, 1890, which is currently treated as a subspecies of Red-billed Firefinch *L. senegala*. Specimens of Sharpe's type series originated from a large part of the distribution of *L. senegala* and are representative of multiple currently accepted subspecies. Therefore, lectotype designations are offered to fix the identity on the universally understood taxonomic concept associated with all of these taxa.

In common with many other ornithological collections, the Natural History Museum (NHM) at Tring, formerly the British Museum (Natural History) (BM(NH) and based in London, has segregated its name-bearing type specimens. Although the *identification* of such material in the collection dates from Gray (1844–49) and was afforded a degree of import during the preparation of the *Catalogue of the birds in the British Museum* (Sharpe *et al*. 1874–98), the process of purposefully *segregating* these specimens did not commence until the late 1930s, in response to the looming threat of war and the perceived need to move the most irreplaceable material to the Tring outpost, where it was less likely to be at risk from bombing (Warren 1966: iv). This process was reinvigorated in the late 1940s, culminating in the publication of a three-volume types catalogue (Warren 1966, Warren & Harrison 1971, 1973). However, although Warren identified or confirmed literally thousands of type specimens in the collection, only a single representative example of each taxon was transferred to the museum's type cabinets, whilst only those details associated with the same specimen were recorded in the relevant volume of the catalogue. In cases where

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multiple types (syntypes) of a taxon were present in the museum, the remainder of this material was left *in situ* in the main collection, although its presence was usually (but not invariably) noted in the catalogue.

During the past decade, staff at NHM have again devoted effort to the (re-)identification and segregation of the 'other' and additional name-bearing type material. In some cases, as a result of the need to objectively define a taxon due to the type series being mixed, the designation of lectotypes has become necessary (e.g., Tennyson *et al*. 2022, Kirwan *et al*. 2024). Here, we deal with three cases in which the available syntypes comprise specimens of different taxa, necessitating a lectotype in each case.

MEXICAN PARROTLET *Forpus cyanopygius*

Souancé (1856: 157) described *Psittacula cyanopygia* from specimens in the collection of his uncle, André Masséna, Prince of Essling, Duke of Rivoli (1758–1817). Although Souancé did not report how many specimens he had seen or their sex, his concise description is of the male alone. Shortly afterwards, Souancé (1857: pl. XLII) published a more detailed account, now including the female, and accompanied by a plate (our Fig. 1) depicting both sexes based on specimens in the Masséna collection. Two specimens from the latter collection are now present in the NHM (see Table 1), a male and a female (Figs. 2–3), and these have always been treated as two syntypes of *cyanopygia* (Salvadori 1891: 250, Warren 1966: 75). The latter author listed details of the male, NHMUK 1859.11.22.38, and reported that 'there is a female syntype in the collection'.

Multiple notices by the same author concerning new 'species' were not uncommon during the 19th century (e.g., McAllan 2016, Kirwan & Kirkconnell 2022, Bruce 2023). As books could take years to produce, authors often chose to quickly publish concise descriptions of new species in journals first. These were based on already

Figure 1. Plate XLII in de Souancé's *Iconographie des perroquets: non figurés dans les publications de Levaillant et de M. Bourjot Saint-Hilaire* (1857), depicting a male (upper) and female *Psittacula cyanopygia* based on specimens in the former collection of André Masséna, Prince of Essling, Duke of Rivoli (© Hein van Grouw)

TABLE 1

Type material pertaining to *Psittacula cyanopygia* Souancé, 1856, as identified by us in the Natural History Museum, Tring (NHMUK), including their current status following the results of this paper.

NHMUK Reg. no.	Sex	Locality	Other notes concerning provenance	Status following this paper
1859.11.22.38	male	Bolivia [*sic*, = western Mexico]	Purchased from E. Parzudaki, from the Masséna d'Essling collection	lectotype
1859.11.22.39	female	Bolivia	Purchased from E. Parzudaki, from the Masséna d'Essling collection	paralectotype

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Figure 2. Lectotype of *Psittacula cyanopygia* Souancé, 1856, NHMUK 1859.11.22.38, male, Bolivia [*sic*, = western Mexico], formerly part of the Masséna d'Essling collection (Jonathan Jackson, © Trustees of the Natural History Museum, London)

Figure 3. Paralectotype of *Psittacula cyanopygia* Souancé, 1856, NHMUK 1859.11.22.39, female, Bolivia, formerly part of the Masséna d'Essling collection. The locality 'Bolivia' was added later by G. R. Gray as it was assumed the specimen came from there, but originally the specimen lacked a locality. Bolivia may be correct after all as the specimen is, in fact, an example of Cobalt-rumped Parrotlet *Forpus xanthopterygius*; see also Fig. 5 (Jonathan Jackson, © Trustees of the Natural History Museum, London)

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prepared, detailed accounts for books published subsequently. Although Souancé (1856: 157) did not mention the sexes, the plate and text in Souancé (1857) can be taken as evidence to satisfy Art. 72.4.1.1 (ICZN 1999) that specimens of both sexes had been seen by Souancé at the time. Therefore, the type series for *cyanopygia* comprised at least two specimens, a male and a female.

Souancé (1856, 1857) also did not ascribe a locality to his new species, presumably because Masséna's specimens lacked any relevant data. No original labels exist, and when both specimens were received at BM(NH) in November 1859 (purchased within a batch of specimens from Emile Parzudaki [1829–99], a well-known dealer in natural history specimens based in Paris) they were registered without a locality. However, at some point they were labelled (incorrectly) as being from Bolivia. This is because a male specimen (NHMUK 1846.9.9.45) (now recognised as a Cobalt-rumped Parrotlet *Forpus xanthopterygius flavescens*) from Bolivia, received in 1846 from the English botanist Thomas Bridges (1807–65), was registered initially as an unidentified '*Psittacus*'. Subsequently, Gray (1859: 86) listed it as Souancé's *Psittacula cyanopygia*, which at the time was the only specimen of this species in the museum's collection.

In the NHM copy of Gray (1859), Masséna's two specimens—without a locality—have been added in Gray's hand; they had been received just after his list was published. As it was then thought that all three specimens involved were the same species, it must have been presumed that Masséna's birds also came from Bolivia. Salvadori (1891: 250) listed the locality of Masséna's specimens as '[Bolivia.]', because he knew (or suspected) that the locality must be incorrect. He also knew that Bridges' specimen represented a different species. Indeed, in his opinion it was a new species, which he described as *Psittacula flavescens* (Salvadori 1891: 248), now *Forpus xanthopterygius flavescens*. Because of the misidentification of Bridges' Cobalt-rumped Parrotlet by Gray (1859: 86), for many years Bolivia was generally believed to form (part of) the distribution of *cyanopygia* (Finsch 1868: 663). Based on birds collected by Andrew Jackson Grayson (1819–69), on the Tres Marías Islands, 100 km off the coast of Nayarit, Bolivia started to be questioned, and western Mexico was accepted as the true distribution (Finsch 1870: 345).

Some workers believed the insular birds differed from the mainland population. Grayson (1871: 271), who collected several specimens on the Tres Marías, stated, 'There is a closely allied species on the main land, from which the Tres Maria variety differs in its larger size, especially of the bill, and in its deeper green color'. However, his editor, G. N. Lawrence (1806–95), who plainly contributed much of the paper's text, disagreed; 'There are but two specimens from the Tres Marias, both females: these differ from those of the main land, of which there are eight of both sexes before me, in being of a darker green, as pointed out by Col. Grayson, they are notably darker on the rump and upper tail coverts, in the others there is a greater prevalence of a yellow shade throughout the plumage; in size and the color of the bills, they do not differ materially from the two localities; perhaps the Marias birds may be considered a darker local race' (Lawrence *in* Grayson 1871: 271–272).

Despite Lawrence not considering the colour differences sufficient to warrant naming the Tres Marías parrotlet, Robert Ridgway (1850–1929) disagreed and named it *Psittacula insularis*, drawing on at least four specimens, of which he had examined personally only two (Ridgway 1888: 541). These were both females, presumably the same two specimens mentioned by Lawrence (*in* Grayson 1871: 271), but no males, other than those reported almost 20 years earlier by Finsch (1870: 353); 'I have not been able to examine adult males of this insular form, and have therefore been obliged to translate what Dr. Finsch says concerning that sex.' Salvadori (1891: 249) also did not find the taxa to differ in size, only in colour, and treated *insularis* as a junior synonym of *cyanopygia*. The holotype of *insularis* is in the National Museum

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of Natural History, Smithsonian Institution, Washington, DC; USNM 37347, an adult female collected on the Tres Marías Islands by Grayson in January 1865 (Deignan 1961: 126). The same collection holds one of the paratypes, also an adult female, from the same collector (USNM 39973; Ridgway 1888). Evidently, Finsch (1870: 353) had four specimens: two males, including a young male (in 'transitional plumage' as translated by Ridgway) and two females, all collected by Grayson and of which the males at least are paratypes. Although not mentioned by Sánchez Osés (2010), one of these paratypes survives in the Übersee-Museum Bremen; UMB 6397349, an adult male, and so does UMB 6397345, a female (M. Stiller *in litt*. 2025), but the whereabouts of the other two specimens, which also were originally presumably at UMB, is unknown.

Figure 4. Holotype of *Forpus cyanopygius lutescens* van Rossem, 1939, NHMUK 1889.1.30.475, female collected at Manzanillo Bay, Colima, Mexico, in February 1863 by John Xantus de Vesey, formerly part of the Salvin & Godman collection (Jonathan Jackson, © Trustees of the Natural History Museum, London)

Based on minor differences with mainland *cyanopygia*, William Brewster (1851–1919) described a new subspecies from north-western Mexico, *Psittacula cyanopyga* [sic] *pallida* (Brewster 1889: 85), from two syntypes in the Museum of Comparative Zoology, Cambridge, MA: MCZ 14.389 (adult male) and MCZ 14.390 (adult female), collected at Alamos, southern Sonora, Mexico, on 8 March 1888 by Marston Abbott Frazar (1860–1925) (Bangs 1930: 203). Griscom (1933: 55), who reported near-verbatim much of the collector's correspondence with Brewster, clarified that Frazar's specimens from this region were taken at a 'Hacienda Mercedes' *c*.3 'miles' from the town of Alamos. Salvadori (1891: 249) treated *pallida* as a junior synonym of *cyanopygia*, and Brewster's name has usually been regarded as a synonym ever since (e.g., Dickinson & Remsen 2013: 326, del Hoyo & Collar 2014: 718), with the notable exception of Cory (1918: 76) and Peters (1937: 203).

Salvin & Godman (1897: 581) noted that 'island birds are a little darker, but the difference is very slight' and remarked that the types in the British Museum 'are quite as dark as the birds from the Tres Marias Islands…'. They too treated *insularis* and *pallida* as junior synonyms of *cyanopygia*, but van Rossem (1939: 70) followed Ridgway in recognising *insularis* from the Tres Marías as a separate taxon. By doing so, based on the assumption that the types of *cyanopygia* came from the Tres Marías Islands, van Rossem argued that Ridgway's *insularis* is a junior synonym of Souancé's nomen, and that the mainland form therefore lacked a name. He proposed *Forpus cyanopygius lutescens*, based on a specimen (Fig. 4) from Colima, north-west Mexico (van Rossem 1939: 70), being unaware of, or forgetting, Brewster's Sonoran *pallida*. The holotype of *lutescens* is NHMUK 1889.1.30.475, an adult female collected at Manzanillo Bay, Colima, Mexico, in February 1863 by John

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Xantus de Vesey (1825–94), and was formerly part of the Salvin & Godman collection (Warren 1966: 168).

Currently, two subspecies are generally recognised (e.g., Dickinson & Remsen 2013: 326, del Hoyo & Collar 2014: 718): *cyanopygius* from the mainland, with *pallida* as a junior synonym, and *insularis* from the Tres Marías Islands. However, van Rossem's (1939: 70) publication was overlooked, or ignored, by the two global checklists mentioned. Grant (1965) and Gómez de Silva *et al*. (2020) also used the name *insularis* for the Tres Marías population, but the latter authors argued that it should be treated at species rank based on morphology, whilst also noting the degree of genetic divergence between mainland and insular populations reported by Smith *et al*. (2013).

The hypothesis that Souancé's *cyanopygius* is from the Tres Marías, and therefore the mainland taxon should take the name *pallidus* (with *lutescens* as its junior synonym) is, in our opinion, unlikely. Only males of the two populations differ in colour (Grant 1965: 17, Gómez de Silva *et al*. 2020: 21–22) and there is considerable overlap in measurements between the two taxa (Grant 1965: 78). Some authors (notably Juniper & Parr 1998) have claimed that they differ in bill colour (all dark on the Tres Marías), but this suggestion is belied by all of the primary literature (e.g., Grayson 1871, Grant 1965, Gómez de Silva *et al*. 2020) and photographs of live birds on Macaulay Library (www.macaulaylibrary.org) and iNaturalist (www.inaturalist.org). Measurements of Souancé's male *cyanopygius* taken by HvG (wing 89.1 mm, tail 41.9 mm, bill 12.9 mm) fall mainly within the range of overlap, but in coloration and bill length it agrees more with the mainland form. The underparts lack any glaucous tones and there is no contrast between the cheeks/ear-coverts/upper throat and the rest of the underparts; in classic individuals of *insularis*, the head is brighter and yellower than the duller underparts (see, for example, https://macaulaylibrary.org/asset/633446908). Furthermore, there is no evidence that anyone had collected birds on the Tres Marías prior to 1865 (Stager 1957: 416). Consequently, we are confident that Souancé's *cyanopygius* can indeed be applied to the mainland taxon.

More important here, however, is that the female syntype of *cyanopygia* belongs to another species. None of those authors mentioned above who had examined the specimens (e.g., Finsch 1868, Salvin & Godman 1879, Salvadori 1891, van Rossem 1939) noticed that NHMUK 1859.11.22.39 is actually an example of *Forpus xanthopterygius* (see Fig. 5 for details and Table 2 for measurements) and therefore may well have come from Bolivia after all. In light of the discovery that the two syntypes represent different species, it is necessary to fix the identity on the universally understood taxonomic concept associated with *Psittacula cyanopygia*, via designation as its lectotype the unambiguously identified male specimen (NHMUK 1859.11.22.38; Fig. 2) with unknown locality from the Masséna collection. This designation satisfies Arts. 74.7.1, 74.7.2 and 74.7.3 (both original and amended versions; ICZN 1999, 2003), as well

TABLE 2

Mensural data (in mm) from three female specimens of Mexican Parrotlet *Forpus cyanopygius*, three female Cobalt-rumped Parrotlets *F. xanthopterygius* and the paralectotype (female) of *Psittacula cyanopygia* Souancé, 1856, all held at the Natural History Museum, Tring (NHMUK) and taken by HvG. In size, the paralectotype is clearly in closer accord with *F. xanthopterygius* and herein is reidentified as an example of the latter species.

Forpus cyanopygius	Wing	Tail	Bill
NHMUK 1896.12.1.118	84.0	39	13.0
NHMUK 1896.12.1.119	85.1	39	12.9
NHMUK 1889.1.30.478	85.2	40	13.0
Mean	**84.8**	**39.3**	**12.97**
Forpus xanthopterygius			
NHMUK 1895.4.1.437	83.0	43	12.1
NHMUK 1904.7.8.34	83.2	43	10.6
NHMUK 1905.10.12.45	82.9	44	10.8
Mean	**83.0**	**43.3**	**11.2**
Paralectotype	**83.2**	**44**	**11.9**

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Figure 5. Dorsal (A), ventral (B) and lateral (C) views of the paralectotype of *Psittacula cyanopygia* Souancé, 1856, NHMUK 1859.11.22.39, female, in the middle in each image, compared to females of Mexican Parrotlet *Forpus cyanopygius* NHMUK 1889.1.30.478 from Río Presidio, Durango/Sinaloa, western Mexico (left) and Cobalt-rumped Parrotlet *Forpus xanthopterygius*, NHMUK 1895.4.1.437, from Rio de Janeiro, south-east Brazil (right). The smaller bill, generally darker green upperparts and wings, with a hint of blue in the primaries, and the characteristic bright emerald-green 'stripe' formed by the tips to the greater coverts confirm that the paralectotype of *Psittacula cyanopygia* Souancé, 1856, is a *Forpus xanthopterygius* rather than *Forpus cyanopygius*; see also Table 2 for comparative mensural data, which also help to establish the species identity (Jonathan Jackson, © Trustees of the Natural History Museum, London)

as being in accord with Recommendations 74A and 74C. It results in NHMUK 1859.11.22.39 (Fig. 3) becoming a paralectotype of *Psittacula cyanopygia*, irrespective of its taxonomic identity.

MOLUCCAN WHISTLER *Pachycephala macrorhyncha clio*

Wallace (1863a: 341–342) described *Pachycephala clio*—currently treated as a subspecies of Moluccan Whistler *P. macrorhyncha*—based on an unstated number of specimens. However, he clearly must have possessed more than one because he mentioned both sexes *and* he considered its *terra typica* to be the 'Sula Islands and Bouru' [= Sula Islands, just east of Sulawesi, and Buru in the northern Moluccas]. Warren & Harrison (1971: 122) remarked that *clio* was known from multiple syntypes involving both sexes collected by Alfred Russel Wallace (1823–1913), from which they selected an adult male taken in 1861 on the Sula Islands (NHMUK 1873.5.12.528) as their representative syntype. In total, we have identified 19 syntypes of *Pachycephala clio* Wallace, 1863, housed at NHMUK (Table 3), but it seems that there were originally an additional four specimens belonging to the type series, which are now either lost or, in two cases, exchanged with another museum (for details see Table 3). Rookmaaker & van Wyhe's (2018) discovery of a price list of birds collected by Alfred Russel Wallace revealed

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TABLE 3

Type material pertaining to *Pachycephala clio* Wallace, 1863, as identified by us in the Natural History Museum, Tring (NHMUK) and Museum für Naturkunde, Berlin (ZMB), including their current status following the results of this paper. To the best of our knowledge, all of the specimens listed herein were collected by A. R. Wallace (Buru) or (on the Sula Islands) his assistant, Charles Allen (1839–92), during 1861, except NHMUK 1862.12.21.16 and 1862.12.21.17, which were only probably collected in that year. According to Baker (2001), Wallace visited Buru during May and June 1861, whilst Allen collected on southern and eastern islands of the Sula group around August and September 1861. In addition, NHMUK 1862.12.21.15 (sex unknown, from the Sula Islands) and NHMUK 1873.5.12.30 (female, from Buru), were exchanged with the Zoological Survey India, Kolkata, at some point, although the specimens were not mentioned by Sclater (1892) or Sakthivel *et al*. (2011). According to the relevant registration book, two other specimens (both from Buru) were also received as part of the 1873 accession (NHMUK 1873.5.12.529, sex unknown, and NHMUK 1873.5.12.534, male), but can no longer be found in the collection.

Reg. no. (all NHMUK except last)	Sex	Locality	Other notes concerning provenance	Status following this paper
1862.12.21.16	male	Sula	Purchased from Stevens (no original Wallace label)	paralectotype
1862.12.21.17	female	Sula	Purchased from Stevens (no original Wallace label)	paralectotype
1873.5.12.528	male	Sula	Purchased from Wallace	lectotype
1873.5.12.531	male	Sula	Purchased from Wallace	paralectotype
1873.5.12.537	male	Sula	Purchased from Wallace	paralectotype
1873.5.12.538	female	Sula	Purchased from Wallace	paralectotype
1873.5.12.539	female	Sula	Purchased from Wallace	paralectotype
1881.5.1.71	male	Sula	Received with the Gould collection	paralectotype
1898.9.20.1059	female	Sula	Received with the Seebohm collection	paralectotype
1873.5.12.532	male	Buru	Purchased from Wallace	paralectotype
1873.5.12.533	female	Buru	Purchased from Wallace	paralectotype
1873.5.12.535	female	Buru	Purchased from Wallace	paralectotype
1873.5.12.536	female	Buru	Purchased from Wallace	paralectotype
1873.5.12.544	male	Buru	Purchased from Wallace	paralectotype
1881.5.1.91	female	Buru	Received with the Gould collection	paralectotype
1888.5.30.271	male	Buru	Received with the Tweeddale collection	paralectotype
1888.5.30.272	female	Buru	Received with the Tweeddale collection	paralectotype
1888.5.30.273	female	Buru	Received with the Tweeddale collection	paralectotype
1888.5.30.280	male	Buru	Received with the Tweeddale collection	paralectotype
ZMB 25510	male	Sula	Purchased	paralectotype

that two specimens of *clio*, one from each of the two island groups, were offered for general sale by his dealer Stevens. There is a specimen, labelled as a syntype, collected in 1861 on the Sula Islands, with an original but damaged Wallace label indicating a sale price, held in the Museum für Naturkunde, Berlin (ZMB 25510) (GMK pers. obs., July 2025). There is no evidence that this specimen was ever in the British Museum, and it is perhaps one of those mentioned in the price list. At the time of publication of the relevant volume of the *Catalogue of the birds in the British Museum* (Gadow 1883), six specimens collected by Wallace on Buru and eight from the Sula Islands had been identified in the collection, although their type status was not noted therein, perhaps because the name *clio* was treated in the synonymy of what is now Black-tailed Whistler *P. melanura*. That subsequent writers were in no doubt as to the dual localities is exemplified by Salvadori (1876: 377), wherein a young male of this *Pachycephala* from Buru was assigned to *clio*.

Almost 40 years later, Hartert (1899: 32) described a new subspecies of *Pachycephala* from the island of Buru based on specimens collected by Joannes Maximiliaan Dumas (1856–1931). Although he specifically diagnosed his new taxon, *Pachycephala melanura*

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buruensis, from Wallace's *clio*, his only comments concerning the latter was to twice refer to '*P. clio* of the Sula Islands' (Hartert 1899: 32–33). A year later, in his more comprehensive report, Hartert (1900: 237) mentioned only that *clio* occurs on the Sula Islands and failed to acknowledge that Wallace (1863a) had material from Buru that he had also explicitly included when describing his new 'species'. On neither occasion did Hartert designate a type for *buruensis*; only much later did he (Hartert 1920: 448) list as the type an adult male collected at 3,000 ft., on 'Mt. Mada' [= Kapalatmada], during August–September 1898. However, as noted by LeCroy (2010: 23), there are three specimens with label data identical to the above in the American Museum of Natural History, New York, so she selected AMNH 657483 to serve as the lectotype of Hartert's name.

Figure 6. Lectotype of *Pachycephala clio* Wallace, 1863, NHMUK 1873.5.12.528, male collected on the Sula Islands by A. R. Wallace in 1861 (Jonathan Jackson, © Trustees of the Natural History Museum, London)

There is general acceptance in the relevant literature that *clio* (endemic to the Sula Islands) and *buruensis* can be separated subspecifically, as males of the first-named taxon have the upperparts brighter and yellower, and females have the throat whitish with darker barring and the rest of the underparts slightly washed yellow (White & Bruce 1986, Eaton *et al*. 2016, del Hoyo & Collar 2016, Boles *et al*. 2024). Wallace (1863b: 30) himself had noted that Buru specimens 'have a more yellow tinge on the back, and the black pectoral band is generally broader than in those from Sula.' As a result of the original series being mixed, it is necessary to fix the name *Pachycephala clio* Wallace, 1863, to the Sula population, via designation of a lectotype. Although Hartert's (1899: 33) reference to '*P. clio* of the Sula Islands' was rather 'generously' considered to represent a formal restriction of the type locality by Galbraith (1956: 202) and Mayr (1967: 21), the lack of clarity as to the type series in Warren & Harrison (1971) means that the issue is not completely resolved. To settle the matter, we select as the lectotype of *Pachycephala clio* the adult male specimen (NHMUK 1873.5.12.528; Fig. 6) collected on the Sula Islands in 1861 that was listed by Warren & Harrison (1971: 122). This designation satisfies Arts. 74.7.1, 74.7.2 and 74.7.3, as well as being in accord with Recommendations 74A, 74C and 74E. It results in all 18 of the additional specimens listed in Table 3 becoming paralectotypes of *P. clio*, irrespective of their taxonomic identity.

RED-BILLED FIREFINCH *Lagonosticta senegala brunneiceps*

Sharpe (1890: 277) described *Lagonosticta brunneiceps*, currently treated as a subspecies of Red-billed Firefinch *L. senegala*, based on an unstated number of specimens. Warren & Harrison (1971: 78) stated rather imprecisely 'there are several other syntypes in the collection' but, as the original description was based on all specimens present at that time in the British Museum's bird collection, the type series can be considered to comprise 33

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specimens (Sharpe 1890: 277–278); 31 of these listed specimens are still present (see Table 4). They originate from 'North-eastern Africa throughout Eastern Africa and the south-east and south-west portions of the continent', which, according to Sharpe (1890: 277), constituted the distribution of *brunneiceps*.

The number of subspecies currently recognised in *L. senegala* is six (del Hoyo & Collar 2016: 710, Payne 2020) or seven (Dickinson & Christidis 2014: 290), due to at least some geographic variation being clinal and not well marked (Dowsett *et al*. 2008: 497). With respect to the distribution ascribed to *L. s. brunneiceps*, there also appears to be no consensus: it has been considered to be restricted to parts of Eritrea and Ethiopia (Mayr *et al*. 1968: 327); to South Sudan and Ethiopia alone (Dickinson & Christidis 2014: 290); South Sudan, Ethiopia and Eritrea (Fry & Keith 2004: 362); or in Sudan, South Sudan, Eritrea, Ethiopia and northern Kenya (del Hoyo & Collar 2016: 710, Payne 2020). Even if we consider the widest distribution for *L. s. brunneiceps*, this still excludes most of the range given by Sharpe (1890: 277), and Sharpe's type series includes specimens now ascribed to another three or four generally accepted subspecies—*L. s. rhodopsis* (von Heuglin, 1863), *L. s. ruberrima* Reichenow, 1903; *L. s. rendalli* E. Hartert, 1898; and *L. s. pallidicrissa* von Zedlitz, 1910 (some authors consider the latter a synonym of *rendalli*).

Based on specimens collected at Bahr el Ghazal (in what is now the north-west of South Sudan), von Heuglin (1863: 166) had described *Estrelda rhodopsis* as a new species. Sharpe (1890: 279) mentioned this taxon but without listing any specimens in the British Museum collection. Instead, presumably inadvertently, he included two specimens that might have been ascribed to *rhodopsis* within his new taxon *brunneiceps*. *L. s. rhodopsis* is variously considered to occur from extreme northern Senegal and Mali east to Sudan, through the lowlands of western Eritrea and Ethiopia, north-west Kenya and southern Ethiopia (Mayr *et al*. 1968: 327); from eastern Mali to Sudan (except the south-east) and the lowlands of western Eritrea and Ethiopia (Fry & Keith 2004: 361); in eastern Nigeria and southern Chad to Sudan, northern and western South Sudan, western Ethiopia and Eritrea (Dickinson & Christidis 2014: 290); or in eastern Nigeria, southern Chad, northern Cameroon, northern Central African Republic, western Sudan, northern and western South Sudan, and the lowlands of western Eritrea and western Ethiopia (del Hoyo & Collar 2016: 710, Payne 2020). One syntype of *Estrelda rhodopsis* von Heuglin, 1863, is held in the Naturalis Biodiversity Center, Leiden, an adult female collected in February 1863 (RMNH.AVES.90888) (Dekker & Quaisser 2006: 42). Another syntype, an adult male also collected in February 1863, is in the Staatliches Museum für Naturkunde, Stuttgart (SMNS-Z-ORN-5380) (F. Woog *in litt*. 2025).

Reichenow (1903: 24) described *ruberrima* as a subspecies of Sharpe's *L. brunneiceps* as, in his opinion, this is overall more reddish than the other taxa already known at the time. He stated that *ruberrima* occurs in areas west, north and east of Lake Victoria ('Gebiete in Westen, Norden und Osten des Victoria Niansa'). As this distribution falls within that Sharpe (1890: 277) delimited for *brunneiceps*, one can assume this informed Reichenow's decision to describe *ruberrima* as a subspecies. Nowadays, *ruberrima* is considered to occur in parts of the Democratic Republic of Congo, Uganda, Kenya, Tanzania, Zambia and Malawi (Dickinson & Christidis 2014: 290, Payne 2020), with some authors adding north-east Angola to its range (Mayr *et al*. 1968: 328, Dean 2000: 325, del Hoyo & Collar 2016: 710). As the distribution of *ruberrima* given by Reichenow is rather imprecise, it is not necessarily clear which specimens then in the Museum für Naturkunde, Berlin, he used for his description. Lake Victoria lies within Tanzania (in its west and south), Uganda (north) and Kenya (east), and of these countries only Tanzanian specimens were in the Berlin collection at the time of the original description. ZMB 29203, an adult male collected at Bokoba, Kagera, Tanzania [on the west side of Lake Victoria], on 18 December 1890 by Emin Pasha (1840–92)

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TABLE 4

Type material pertaining to *Lagonosticta brunneiceps* Sharpe, 1890, as identified by us in the Natural History Museum, Tring (NHMUK), including their current status following the results of this paper. Two specimens can no longer be found in the collection. These are NHMUK 1889.7.20.331, female, Lamu [Kenya] and NHMUK 1889.7.20.332, male, Pangani, E. Africa [Tanzania], both collected by J. Kirk and received with the Shelley collection.

NHMUK Reg. no.	Sex	Locality	Other notes concerning provenance	Status following this paper
1845.6.6.52	male	Shoa [Shewa, Ethiopia]	Presented by the India Museum	paralectotype
1845.7.6.144	male	South Africa	Presented by Sir A. Smith	paralectotype
1845.7.6.145	female	South Africa	Presented by Sir A. Smith	paralectotype
1859.5.21.8	male	Mozambique	W. Gueinzius collection	paralectotype
1859.5.21.19	female	Mozambique	W. Gueinzius collection	paralectotype
1860.12.31.146	male	Tete, Zambesi [Mozambique]	Collected during Livingstone expedition by J. Kirk	paralectotype
1860.12.31.167	female	Tete, Zambesi [Mozambique]	Collected during Livingstone expedition by J. Kirk	paralectotype
1861.5.8.119	?	Shoa [Shewa, Ethiopia]	Presented by the India Museum	paralectotype
1869.10.16.184	male	Dongolo [Eritrea]	Collected by W. T. Blanford	paralectotype
1873.12.10.95	male	Katenbella, Benguela [Angola]	R. B. Sharpe collection	paralectotype
1877.7.11.350	male	Maragaz [Meraguz, Eritrea]	R. B. Sharpe collection, collected by W. Jesse	lectotype
1877.7.11.412	juv.	Keren [Eritrea]	R. B. Sharpe collection, collected by Esler	paralectotype
1877.7.11.441	male	Keren [Eritrea]	R. B. Sharpe collection, collected by Esler	paralectotype
1877.7.11.490	male	Keren [Eritrea]	R. B. Sharpe collection, collected by Esler	paralectotype
1877.7.11.495	female	Bejook [Bedjook, Eritrea]	R. B. Sharpe collection, collected by W. Jesse	paralectotype
1877.7.11.497	male	Ondonga [Namibia]	R. B. Sharpe collection, collected by C. J. Andersson	paralectotype
1877.7.11.498	female	Damara Land [Namibia]	R. B. Sharpe collection, collected by C. J. Andersson	paralectotype
1877.7.11.499	female	Transvaal [South Africa]	R. B. Sharpe collection, collected by T. Ayres	paralectotype
1878.12.31.895	female	Transvaal [South Africa]	R. B. Sharpe collection, collected by T. Ayres	paralectotype
1879.9.7.273	male	Crocodile River [South Africa]	Presented by W. E. & C. G. Oates, collected by F. Oates	paralectotype
1879.9.7.274	male	Crocodile River [South Africa]	Presented by W. E. & C. G. Oates, collected by F. Oates	paralectotype
1884.2.6.11	male	Zambesi [Mozambique]	Presented by J. Kirk	paralectotype
1887.8.12.8	male	Ujiji, Upper Congo [Tanzania]	Bohndorff collection	paralectotype
1887.8.12.9	male	Ujiji, Upper Congo [Tanzania]	Bohndorff collection	paralectotype
1887.9.28.127	male	Kibiro, Equatorial Africa [Uganda]	Collected and presented by Emin Pasha	paralectotype
1888.9.20.740	male	Bejook [Bedjook, Eritrea]	Received with the Tweedale collection, collected by W. Jesse	paralectotype
1888.9.20.741	female	Maragaz [Meraguz, Eritrea]	Received with the Tweedale collection, collected by W. Jesse	paralectotype

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1889.7.20.329	female	Soudan [Sudan]	Received with the Shelley collection, collected by Capt. Verner	paralectotype
1889.7.20.333	female	Pangani, E. Africa [Tanzania]	Received with the Shelley collection, collected by J. Kirk	paralectotype
1889.7.20.334	female	Rustenberg, E. Transvaal [South Africa]	Received with the Shelley collection, collected by W. Lucas	paralectotype
18889.7.20.335	male	Pretoria [South Africa]	Received with the Shelley collection, collected by Pratt	paralectotype

is labelled as a type. Because Reichenow described both sexes, this specimen should be treated as a syntype, and two other specimens taken at the same locality by Pasha can also be considered syntypes; ZMB 29203 and ZMB 2000.39128, both adult females collected on 10 November 1890. In addition, two specimens from Lake Kivu, Western Province, Rwanda, and one from Niangabo, Orientale, Democratic Republic of Congo collected on 21 July 1891, may also prove to be syntypes, as these localities lie west of Lake Victoria and their accession dates indicate that they would have been available to Reichenow (P. Eckhoff *in litt*. 2025). Further syntypes may yet be identified in other collections (S. Frahnert *in litt*. 2025).

Figure 7. Lectotype of *Lagonosticta brunneiceps* Sharpe, 1890, NHMUK 1877.7.11.350, male collected at Maragaz [= Meraguz, in the late 19th century a region in the former administrative district of Hamasien surrounding Asmara], Eritrea, on 27 July 1868, by W. Jesse during the Zoological Society's Abyssinian Expedition (1867–68) (Jonathan Jackson, © Trustees of the Natural History Museum, London)

Five years earlier, based on two specimens collected in Malawi by Percy Rendall, Hartert (1898: 72) had described *rendalli*—in honour of the collector—as a subspecies of *L. senegala* (Linnaeus, 1766). He stated that it was very similar to *senegala*, differing only by having slightly shorter wings and darker upperparts. Compared to *brunneiceps*, 'the distinct reddish crown and reddish back of the male seem to separate it easily from that species'. In his opinion *Lagonosticta brunneiceps* was a different species and, presumably as a result, he did not mention the overlapping distributions of *rendalli* and *brunneiceps*. Nowadays, *rendalli* is considered to occur in southern Africa, south of a line from southern Angola to southern Tanzania (Dickinson & Christidis 2014: 290, del Hoyo & Collar 2016: 710). Hartert's original description was very clearly based on two specimens (i.e., syntypes) collected by Rendall, an adult male and female. Much later he (Hartert 1919: 147) listed the adult male bearing Rendall's collection number 13 as the 'type', which LeCroy (2013: 90) considered to represent a lectotype designation, presumably under Art. 74.5. Type material held in the American Museum of Natural History, New York: lectotype, AMNH 451195, a male collected on the upper Shire River south of Lake Nyasa, Malawi, on 9 May 1895 by Percy J. Rendall (1861–1948), and paralectotype, AMNH 451196, a female collected at the same location on 4 March 1896 also by Rendall (LeCroy 2013: 90).

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Subspecies *L. s. pallidicrissa* von Zedlitz, 1910, was generally considered to be a synonym of *rendalli*, but some global and regional checklists (e.g., Dowsett *et al*. 2008: 497, Dickinson & Christidis 2014: 290) do recognise it. Von Zedlitz (1910: 173) described this subspecies from material collected in Angola, and distinguished it based on the brighter coloured undertail-coverts. The distribution of *pallidicrissa* is within that of *rendalli* as mentioned above, but mainly in the east (Dickinson & Christidis 2014: 290). Von Zedlitz designated a holotype from Rothschild's collection now held in the American Museum of Natural History, New York: AMNH 451204, a male, collected at Humpata, Huíla, Angola (14º57'S, 13º16'E), on 16 February 1906 by William J. Ansorge (1850–1913) (LeCroy 2013). In the same publication—on the different subspecies of *L. senegala*—von Zedlitz (1910: 173) mentioned *brunneiceps* Sharpe and stated, incorrectly, that no type specimen existed. As the distribution for *brunneiceps* given by Sharpe (1890: 277) included different subspecies, but Sharpe was the first to mention South Africa, Zedlitz allocated the name *brunneiceps* to the birds from South Africa to Mozambique, a distribution nowadays generally accepted for subspecies *rendalli*.

Among the type series of *brunneiceps*, ten are from the currently recognised distribution of this subspecies, including eight from Eritrea (Table 4). That country, therefore, can be considered the *terra typica* within the type series. The remaining 21 specimens belong to subspecies *rhodopsis* (n = 2), *ruberrima* (n = 3), and *rendalli* and/or *pallidicrissa* (n = 16). As a result of the original type series being mixed, and the lack of consensus regarding the distribution of this taxon (see above), it is necessary to fix the name *Lagonosticta brunneiceps* Sharpe, 1890, to the population from Eritrea via designation of a lectotype. We select as the lectotype the adult male (NHMUK 1877.7.11.350; Fig. 7) collected at Maragaz [= Meraguz, a historical region in the former administrative district of Hamasien surrounding Asmara in the late 19th century], Eritrea, on 27 July 1868, by W. Jesse (dates unknown) during the Zoological Society's Abyssinian Expedition (1867–68). This was Warren & Harrison's (1971: 78) selected syntype, who were presumably influenced in this choice because Sharpe himself had labelled the specimen as his type and Shelley (1905: 258) also listed it as such. This designation satisfies Arts. 74.7.1, 74.7.2 and 74.7.3, as well as being in accord with Recommendations 74A and 74C. It results in all 30 of the additional specimens listed in Table 4 becoming paralectotypes of *L. brunneiceps*, irrespective of their taxonomic identity.

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