

The complicated early nomenclature of Yellow-tufted Honeyeater *Lichenostomus melanops*, and the watercolours examined by John Latham

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SUMMARY.—Yellow-tufted Honeyeater *Lichenostomus melanops* was described under four different English names and three Latin binomials by Latham (1801a,b, 1822). Until now, these names were usually thought to be based solely on four watercolours produced during the early years of settlement in Australia, one of which was established by Sharpe (1906) as the ‘type’ of Latham’s ‘Black-eyed Thrush’ and ‘*Turdus melanops*’, the original binomial of *Lichenostomus melanops*. We review the history of the watercolours copied by Latham, and the complicated nomenclature of *L. melanops*. The first watercolour of *L. melanops* that Latham inscribed ‘*Turdus melanops*’ was included in a different set of watercolours to the ‘Watling’ set reviewed by Sharpe (1906). A specimen of *L. melanops* >200 years old in the Paris museum acquired from Joseph Banks was also compared to the original descriptions. Conditions simulating those under which Latham may have examined the specimen or another could possibly explain the anomalous rusty-brown coloration Latham ascribed to his ‘Black-eyed Thrush’, rather than the olive-green typical of *L. melanops*.

Yellow-tufted Honeyeater *Lichenostomus melanops*, one of two species in the genus *Lichenostomus*, is a locally common resident of south-east Australia. Latham provided three different descriptions in English and three Latin binomials for this species in 1801, including ‘Black-eyed Thrush’ and *Turdus melanops* (Latham 1801a,b), the nomenclatorial progenitor of *L. melanops*, as well as a fourth English name and description (Latham 1822). These were based on four illustrations produced in Australia during the early years of the Port Jackson settlement at Sydney Cove, New South Wales. Sharpe (1906) incorrectly identified the original illustration examined by Latham on which he based his ‘Black-eyed Thrush’ and *Turdus melanops*. Sharpe’s designation is doubly incorrect: not only did he use the wrong set of watercolours to designate the ‘type’, but designation of a ‘type’ from a watercolour is not now permitted by the *International code of zoological nomenclature* (ICZN 1999), although it was customary at the time.

In 1802, Vieillot described a specimen of *L. melanops* recently received by the Muséum d’Histoire Naturelle (now the Muséum National d’Histoire naturelle, Paris; MNHN). In 2013, while researching the Baudin expedition (1800–04), JFFJJ fortuitously located the specimen of *L. melanops* (mounted with the skull *in situ*) described by Vieillot.

To identify which illustrations Latham used for his four named species, we examined all of the watercolours annotated and copied by Latham. We tried to understand why Latham failed to recognise that all were of the same species, and we examined the coloration of the watercolours. The Paris specimen could have been seen by Latham while describing the species, and is discussed in this paper.

The different sets of watercolours

The Watling watercolours.—Four of the six first known depictions of *L. melanops* are included in a set of 488 watercolours produced during the early years of the Port Jackson settlement (established 1788) and today bound in a single volume held in the Natural History Museum (NHMUK), London. Known as the Watling collection (henceforth Watling), the paintings depict Australian birds (271 watercolours), mammals (16), reptiles (nine), fish (15), molluscs (17), arthropods (13) and plants (59), as well as landscapes, Aboriginal peoples and their implements (88). Originally, the collection comprised 513 watercolours, but 25 watercolours (all birds) are lost (Hindwood 1970). The collection was brought back to London in July 1795 by John White, Surgeon-General of the Port Jackson settlement (White, 1790, Nelson 1998).

The Watling volume is one of several collections of natural history artwork produced during the early years of the Port Jackson settlement (Hindwood 1964, Calaby 1999, Olsen 2001, Annemaat 2014). Other volumes, held in Sydney, Canberra and Wellington, were produced by First Fleet naval personnel John Hunter and George Raper (Calaby 1999, Hindwood 1964). The John Hunter volume in the Mitchell Library, State Library of New South Wales, Sydney, includes four paintings by John Lewin (a far more skilful bird artist than any other at Port Jackson: Neville 2012), one of which also depicts *L. melanops*.

The Watling volume includes the work of at least three artists, but only Thomas Watling signed his paintings (121); the identity of the others is unknown, although the most prolific, identified by several stylistic traits, is known as the ‘Port Jackson Painter’ (Calaby 1999). The Watling watercolours are variously annotated by White, Watling and others (Calaby 1999). *L. melanops* is depicted in four watercolours in Watling: nos. 121, 122, 133 and 156 in Latham’s ms list (Sharpe 1906, Hindwood 1970). Only one of these, no. 122, is signed by Watling.

The Lambert watercolours.—In March 1797, White lent a substantial portion (c.80%) of his watercolours to Aylmer Bourke Lambert, a founder and Vice-President of the Linnaean Society. Lambert apparently still had White’s watercolours in his possession in April 1805 (Nelson 1998). While in his possession, Lambert had the paintings copied (by unknown artists) and bound into three volumes (henceforth Lambert). According to Calaby (1999), Lambert was referring to these copies rather than the originals in 1805. Comprising 225 watercolours, all unsigned, of birds (214), mammals (ten) and a view of Norfolk Island, most were copies of those in Watling (Hindwood 1970). The Lambert volumes also include 22 watercolours of birds with no equivalent in Watling, which may be copies of the 25 watercolours now missing from Watling.

Following Lambert’s death in April 1842, the volumes were acquired by Edward Stanley, the 13th Earl of Derby, who had the volumes rebound with the title ‘New South Wales Drawings’ on their spines. The volumes were held in the library of Stanley’s Knowsley estate in Lancashire until June 2011, when they were sold to the Mitchell Library, where they remain (C. Fisher *in litt.* 2013). Three other volumes of watercolours depicting fish, birds and plants by Port Jackson artists purchased at the Lambert sale by Lord Derby also formed part of the 2011 sale; another noteworthy volume in the Mitchell Library, acquired in 1929, comprises 100 watercolours of Australian birds dating to c.1790 and attributed to the anonymous ‘Sydney Bird Painter’. One also depicts *L. melanops*. Copies of the four Watling watercolours depicting *L. melanops* are in the second volume of Lambert, hereafter Lambert (2) nos. 10, 40, 60 and 65.

The Latham watercolours.—After Lambert had copies made of the original watercolours in Watling, Lambert lent the copies to John Latham. Latham received the Lambert



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Figure 1. Yellow-tufted Honeyeater *Lichenostomus melanops*, Library, Natural History Museum, London, UK (© NHMUK, London). The 'Watling' watercolour used by 'Lambert'.

Figure 2. Yellow-tufted Honeyeater *Lichenostomus melanops*, Mitchell Library, State Library of New South Wales, Sydney (© Mitchell Library). The 'Lambert' watercolour copy of 'Watling' (= Lambert (2) no. 64, presumably).

Figure 3. Yellow-tufted Honeyeater *Lichenostomus melanops*, Library, Natural History Museum, London, UK (Justin J. F. J. Jansen, © NHMUK, London). The 'Latham' watercolour.

watercolours sometime before 12 October 1799, and returned them on 26 January 1800, as evidenced by a letter preserved with the volumes (Hindwood 1970): 'I hope you will receive back safe your valuable Books of Drawings, which I mean to forward by to-morrow's Coach, which is at the Bell Savage, Ludgate Hill. I have according to my promise given a Name to each Bird, altho' I have been at much loss in respect to the genus of many of them - indeed, even the sizes in some cases have not been noticed any more than the Manners, independent of many circumstances not possible to be ascertained by delineations, unless aided by accurate descriptions, and which, had the Painter been at all versed in ornithology, he could not have failed to have remarked in writing. I should therefore think it not unlikely



Figure 4. Yellow-tufted Honeyeater *Lichenostomus melanops*, Muséum National d'Histoire naturelle, Paris (Justin J. F. J. Jansen, © MNHN). Photographed with overhead fluorescent lighting for illumination. Note olive-green coloration of upperparts.

Figure 5. Yellow-tufted Honeyeater *Lichenostomus melanops*, Muséum National d'Histoire naturelle, Paris (Justin J. F. J. Jansen, © MNHN). Photographed with green backdrop, using small halogen lamps positioned either side of specimen. Note rusty-brown coloration of upperparts.



that in case the specimens themselves should hereafter come before You and Me, we might alter our previous opinion. I do not suppose that any other Notes in writing can be got at besides those already in My possession, but if so, I should advise you to take advantage of it. New subjects will no doubt from Time to Time arrive from New Holland, and in such cases you will do well to take the advantage of procuring Drawings, at least of them, and You cannot do Me a greater favour than in granting Me a View of them' (Mathews 1931).

Latham identified the birds in Lambert and inscribed their names in pencil near the lower margins of the pages (Mathews 1931, *contra* Hindwood 1970). As Lambert had done with Watling, Latham had copies made of the watercolours in Lambert (i.e. second-generation copies) for his own personal use (Latham 1781–1832, Hindwood 1970). Like Watling, Latham's collection of 888 watercolours (which also includes copies of paintings from other sources in addition to those in Lambert) are now housed at NHMUK and were seen by JJFJJ in January 2016 (Latham 1781–1832). Although Latham listed the birds depicted in the Watling watercolours (see below), he apparently never listed his own watercolours, or if he did, the list is now lost. The Latham watercolours (Latham 1781–1832) include two of *L. melanops*, one (Pl. 399) inscribed 'Black-eyed Thrush' (Fig. 3), the other (Pl. 482) as 'Black-eared Thrush'. The former is an exact copy of Lambert (2) no. 65 / Watling no. 121 (Fig. 1), but Latham's 'Black-eared Thrush' is not copied from any known First Fleet source, nor did Latham ever describe a 'Black-eared Thrush' in his publications, perhaps due to his annotation of 'Doubtful' under the illustration.

Latham evidently did not examine the original watercolours in Watling prior to publication of his second *Supplement*. On 12 October 1799, Latham wrote to Thomas Pennant: 'Mr. White, The Surgeon, brought over very many drawings as well as new Birds, but I am sorry to say that altho' I sent out to Him every instruction I could, as also a copy of my synopsis as a Present, he has never offered me yet inspection of his drawings... However, I think it may not be useless to inform you that I have since seen Copies of all

Mr White's Birds in Mr Lambert's Hands, ye drawings being lent to him by Mr White & I should think you might avail yourself of them by applying to Mr Lambert...' (Nelson 1998).

Although information included in Latham's second *Supplement* was taken from notes inscribed on Watling's watercolours, as Latham had not seen the original Watling watercolours before then, it appears that Lambert had at least some of the notes transcribed and sent them to Latham with the copied watercolours, as Latham's letter of 28 January 1800 quoted above suggests: 'indeed, even the sizes in some cases have not been noticed any more than the Manners', indicating that sizes and habits were transcribed for others, while 'I do not suppose any other Notes in writing can be got at besides those already in my possession' shows Latham copied the notes for his own use. Some of this information (known only from these watercolours according to Hindwood 1970) was not used by Latham until he published his *General history of birds* (1821–28). Moreover, despite his assertion to Pennant that he had seen copies of all of White's drawings, he failed to describe some taxa in the second *Supplement*, illustrations of which are missing from Lambert but present in Watling.

That Latham saw the original watercolours in Watling at some point post-1801, however, is proven by a list in his handwriting, identifying the birds in Watling, included with the Watling volume when sold to the NHMUK. The sequence of this list and the watercolours in Watling correspond to that in Latham's second *Supplement*, indicating that Latham re-arranged the original sequence of the Watling watercolours. Latham's list also noted the page numbers on which the birds are described in the second *Supplement*, with the watercolours in Watling being annotated by Latham with the names and same page numbers from the second *Supplement*.

Several birds in Watling and Lambert are unidentifiable, and Latham misidentified a number of birds in his ms list of Watling birds. For example, he identified Watling nos. 112–113 as the 'Yellow-winged Creeper'. But, while no. 112 corresponds (albeit imperfectly) with his description of the 'Yellow-winged Creeper' in Latham (1801a), identified in Sharpe (1906) and Hindwood (1970) as Crescent Honeyeater *Phylidonyris pyrrhopterus*, no. 113 depicts an unidentifiable bird with red-edged primaries. Similarly, Latham identified four watercolours, Watling nos. 115–118, as the 'Yellow-eared Creeper', but while no. 115 corresponds (again imperfectly) with his description of the 'Yellow-eared Creeper' in Latham (1801a), identified in Sharpe (1906) and Hindwood (1970) as Lewin's Honeyeater *Meliphaga lewinii*, nos. 117–118 (no. 116 is missing from Watling) are identified in Sharpe (1906) and Hindwood (1970) as Fuscous Honeyeater *Ptilotula fusca* and Yellow-faced Honeyeater *Caligavis chrysops*, respectively.

The depictions of Yellow-tufted Honeyeater

Latham's 'Bearded Thrush'.—On the first of the Lambert watercolours depicting *L. melanops*, Lambert (2), no. 10, copied from Watling no. 156, Latham inscribed: 'Muscic. australis, White Journ. A. p. 239' (i.e. 'Muscic[apa] australis, White Journ[al] A[ppendix] p[age] 239').

In the appendix to White's *Journal of a voyage to New South Wales* (1790), George Shaw, curator of the Leverian Museum, described and gave the Latin binomial 'Motacilla australis' to the bird depicted by Sarah Stone in Pl. 28, an Eastern Yellow Robin *Eopsaltria australis*. Latham evidently misidentified the *L. melanops* depicted in Lambert (2) no. 10 with the *E. australis* depicted by Stone, and moreover re-assigned it to *Muscicapapa*. Latham later re-identified the original Watling watercolour, no. 156, on his ms list and on the watercolour itself, as the 'Bearded Thrush.' He did not include a description of 'Bearded Thrush' in

Latham (1801a,b), but it did appear in Latham (1822); however, it never received a Latin binomial.

Latham's 'Yellow-tufted Flycatcher'.—On the second of the Lambert watercolours depicting *L. melanops*, Lambert (2), no. 40, copied from Watling no. 122, Lambert inscribed: 'Muscic. novae Hollandiae La. Ind. orn. 2 p. 478. 43' (i.e. 'Muscic[apa] novae Hollandiae La[tham] Ind[ex] orn[ithologicus] [volume] 2, p[age] 478, [number] 43').

In his *Index ornithologicus* (1790), Latham identified his 'Muscicapa novae Hollandiae' with the 'Yellow Eared Fly Catcher' depicted in Pl. 10 in White (1790), and Latham also based his description in Latham (1801a: 215) on the same plate (again by Sarah Stone), which apparently depicts Yellow-faced Honeyeater *Lichenostomus chrysops*. The latter, however, received its specific epithet from Latham, who, based on Lambert (2), no. 46 / Watling no. 134, described the Black-cheeked Warbler in Latham (1801a: 248) and its Latin equivalent *Sylvia chrysops* in Latham (1801b: liv)! Because Latham's 'Muscicapa novaehollandiae' was deemed to be of indeterminate identification (despite general agreement that Pl. 10 in White 1790 depicts *L. chrysops*), ICZN suppressed the name *novaehollandiae* (Hemming 1956, Paynter 1967).

Latham subsequently re-identified the original Watling watercolour, no. 122, from which Lambert (2), no. 40 was copied, as the 'Black-eyed Thrush.' However, Watling no. 122 evidently served as the basis for Latham's description of the 'Yellow-tufted Flycatcher' (Latham 1801a: 215–216) and 'Muscicapa auricomis' (Latham 1801b: xlix). On the reverse of Watling no. 122 there is a note, the edges of which were lost when the drawing was cropped. The full transcription, written on a separate sheet of paper now mounted below the watercolour, reads:

'The Native name of this very common Bird in New South Wales is Darwang. It is a very lively Bird, and by us called the yellow eared Flycatcher. The Tongue is feathered at the tip for Sucking Honey, which it is very fond of. It builds its Nest on the pensile branch of some trees or low shrubs, as I suppose to avoid the opossum, flying Squirrel, Lizard, Guana, and Birds and Mice. The yellow at the Ears are Tufts of Feathers longer than those on the other part of the Head.'

Latham (1801a: 215–216) included these notes (apparently acquired, as noted above, through an intermediary) in his description of the 'Yellow-tufted Flycatcher':

'This is considerably larger than the Hedge Sparrow: bill and legs black: tongue bristly at the tip: the general colour of the plumage on the upperparts is olive green: the crown, and all beneath, from the chin, yellow: through the eyes, from the gape, a large patch of black; at the back part of which, on the ears, a tuft of yellow, which tuft consists of feathers longer than the others: the outer tail feathers yellow.'

'Inhabits New Holland, where it is called Darwang, and is a common species. The English named it, as well as the last, the Yellow-eared Flycatcher: is said to feed principally on honey, which it obtains from the flowers, by means of its feathery tongue: makes the nest on the extreme pendant branches of low trees or shrubs, and by this means escapes the plunder of various smaller quadrupeds, who are unable to reach the nest with safety. Whether this is allied to the last, I will not take upon me to ascertain.'

Latham's 'Mustachoe Flycatcher'.—On the third Lambert watercolour depicting *L. melanops*, Lambert (2), no. 60, copied from Watling no. 133, Latham inscribed 'Sylvia mystacea'. Unlike the previous two depictions, Latham did not associate this bird with one depicted in White (1790). Instead, Latham described it as a new taxon, 'Mustachoe Flycatcher' (Latham 1801a: 221) with the binomial 'Muscicapa mystacea' (Latham 1801b: li). Between examining the Lambert watercolour and publication of the *Supplementum*, Latham re-assigned the bird from the warblers (*Sylvia*) to flycatchers (*Muscicapa*). Latham

subsequently inscribed 'Mustachoe Flycatcher' on the original Watling watercolour, no. 133. Latham's description reads:

'Length from eight to nine inches: bill slender; black: legs black: tongue fringed at the tip: general colour of the plumage pale green; but the under parts from chin to vent greenish yellow; the last most conspicuous on the chin and breast: from the gape springs a black band, which grows broader, and passes under the eye to the hind neck, where it is fringed with yellow. Inhabits New South Wales; it is a pugnacious bird, attacking others, especially the smaller Parakeets.'

Latham's 'Black-eyed Thrush'.—The fourth Lambert watercolour depicting *L. melanops* (Figs. 1–2), Lambert (2), no. 65, copied from Watling no. 121, was annotated 'Turdus melanops' by Latham. Again, he considered this to be a new taxon, which Latham named 'Black-eyed Thrush' (Latham 1801a: 181) and *Turdus melanops* (Latham 1801b: xl). Latham's description reads: 'Length eight inches: bill stout, slightly curved; tongue bristly at the tip: the crown of the head and under parts of the body are yellow; the forehead mottled with dusky: nape, wings, and tail rusty brown, the two last margined with yellow: from the gape springs a black streak growing broader, surrounding the eye, and descending on each side below it, growing more narrow; just within at the bottom part is a small spot of yellow: tail moderately long; the wings reach only to the base of it: bills and legs brownish. Inhabits New South Wales.'

Latham added two annotations in pencil above the illustration on Watling no. 121: 'Black-eyed Thrush Sup. 2. 181' and 'Lambert Drawing II. 65.' A third annotation in ink in a different hand reads: 'Black-eyed Thrush - Latham / Syn - Suppt 2. p. 131. / Natural Size'. The same author also annotated Watling no. 122 'Black-eyed Thrush, Latham Syn - Suppt. 2, p. [number cropped]' and transcribed the note quoted above.

Vieillot's 'L'héorotaire a oreilles jaunes'.—In 1802, Vieillot described a specimen of *L. melanops* as 'L'héorotaire a oreilles jaunes' that had 'only recently' (*depuis peu*) reached MNHN (Vieillot 1802: 156). In 2013, while researching the Baudin expedition (1800–04), JFFJ fortuitously found the specimen of *L. melanops*, mounted with its skull in situ, described by Vieillot. On the underside of the mount was the following inscription: 'Australie - Botany Bay. - Sir Banks - 10160 - Ptilotis auricornis [sic] - Lath.'

The specimen's provenance is confirmed by a set of five acquisition books in MNHN dating from c.1854. In book four, it is recorded that specimen MNHN A.C. 10160 (recently re-registered as MNHN-ZO-2013-174), identified as a male 'Ptilotis auricomis, Lath.' was acquired from 'Sir J. Banks.' Although both the base inscription and acquisition book entry were written after 1837 (when *Ptilotis*, now a junior synonym of *Lichenostomus*, was erected by Swainson), MNHN ZO-2013-174 was evidently acquired by MNHN c.1800, indicating that the data were taken from a subsequently discarded old label. But even that label would not have been original, present on MNHN-ZO-2013-74 when it arrived at the museum (i.e. it would have been prepared years later). JFFJ is unaware of any pre-1810 bird specimen with original labels: no Cook, Baudin, Bullock, Temminck, Lichtenstein, Bonelli or Leverian Museum birds examined by him bear such. The precise origin, collector and date of collection of MNHN ZO-2013-174 are consequently unknown.

In addition to MNHN ZO-2013-174, Banks evidently donated other specimens to MNHN, including a Little Lorikeet *Glossopsitta pusilla* (Jansen 2015), mentioned by Levaillant (1801: 99), two Pied Currawongs *Strepera graculina*, also mentioned by Levaillant (1806: 67), and Short-beaked Echidna *Tachyglossus aculeatus* (de Beaufort 1966). The *G. pusilla* is still at MNHN, where it was recently found by JFFJ. Banks apparently received these specimens, like those of other Australian taxa (including Superb Lyrebird *Menura novaehollandiae*, Spotted Quail-thrush *Cinclosoma punctatum* and Platypus *Ornithorhynchus*

anatinus), post-1792, when he divested himself of most, or perhaps all, of the specimens in his possession (Medway 1981, Jansen & Roe 2013).

MNHN ZO-2013-174 was identified with '*Muscicapa auricomis*' (Latham 1801b: xlix), rather than '*Turdus melanops*' (Latham 1801b: xl), presumably due to the agreement between Latham's description of the olive-green coloration of the 'Yellow-tufted Flycatcher' and the similar coloration of MNHN ZO-2013-174.

Discussion

Although the four watercolours in the second volume of Lambert, nos. 10, 40, 60 and 65, all depict *L. melanops*, Latham ascribed them four different binomials and assigned them to three different genera, *Muscicapa*, *Sylvia* and *Turdus*; in Latham (1801b), he placed them all in *Muscicapa* and *Turdus*. Two of his identifications, of taxa described by Shaw and depicted in White (1790), were erroneous. Latham later inscribed three different English names to the four Watling watercolours of *L. melanops*: 'Black-eyed Thrush', 'Mustachoe Flycatcher' and 'Bearded Thrush', and used the note on the reverse of Watling no. 122 in his description of the 'Yellow-tufted Flycatcher' in Latham (1801a). He employed three binomials in Latham (1801b): *Turdus melanops*, *Muscicapa auricomis* and *Muscicapa mystacea*, with *melanops* appearing first (and thus having priority) in Latham (1801b), despite its appearing last in the Lambert series.

Despite the overall similarity in coloration of the four watercolours depicting *L. melanops* in Lambert, Latham was evidently persuaded by differences between them (due in part to the varying skill of the artists) into believing they represented species in different genera. For example, in Lambert (2), no. 60, identified by Latham as '*Sylvia mystacea*', copied from Watling no. 133, the artist extended the black facial mask into a long, broad stripe tipped by an upswept yellow 'moustache', while in Lambert (2), no. 40, copied from Watling no. 122, identified by Latham as '*Muscicapa novae Hollandiae*', the mask is truncated and the bird has a long yellow ear-tuft. In Lambert (2), no. 65, copied from Watling no. 121, identified by Latham as '*Turdus melanops*', the mask extends like a teardrop on the neck-sides, with a spot of yellow at the tip.

Latham (1801a) described the nape, wings and tail of his 'Black-eyed Thrush' (= '*Turdus melanops*' in Lambert) as 'rusty brown', while the upperparts of 'Yellow-tufted Flycatcher' (= '*Muscicapa novae Hollandiae*' in Lambert) were 'olive green', as they are in life in *L. melanops*. Yet Latham later identified both Watling nos. 121–122 as the 'Black-eyed Thrush', rather than the seemingly more appropriate 'Yellow-tufted Flycatcher'.

How to explain this apparent anomaly? Two clues suggest an answer. As noted above, Latham had a copy made of Lambert (2) no. 65 for his own collection. Comparison of Watling no. 121, Lambert (2) no. 65 and Pl. 399 in Latham (1781–1832) shows a shift in coloration between the original and first- and second-generation copies. In Watling no. 121, the upperparts are dark greyish olive-green above and pale yellowish grey below; in Lambert (2) no. 65, the overall coloration is brighter and the upperparts olive-brown, while in Latham's copy, the upperparts are brown and underparts greenish yellow. In Watling no. 121 and Lambert (2) no. 65, the crown is greenish yellow and the chin bright yellow, but in Latham's copy, the crown and chin are the same greenish yellow as the rest of the underparts. This indicates that, instead of Lambert (2) no. 65, Latham used his own copy of the latter to describe the 'Black-eyed Thrush'.

The other clue was provided by Banks' specimen in Paris. In June 2012, JJJFJ photographed MNHN-ZO-2013-174 in MNHN's underground storage facility, the 'zoothèque', using a Panasonic DMC-TZ7 digital camera and the basement's overhead fluorescent lighting (Fig. 4). The greyish-green coloration of MNHN-ZO-2013-174 in these

photographs agrees both with Vieillot's description of the specimen and the olive-green plumage of *L. melanops* under natural light.

However, in April 2013, JJFJJ again photographed MNHN-ZO-2013-174, but with very different results. This time, he used an Olympus SP600UZ digital camera and photographed the specimen against a green backdrop, using small halogen lamps sited either side of the specimen. The mix of overhead fluorescent lighting and lateral halogen lamps (combined with the green backdrop) resulted in a dramatic difference, turning the background from green to beige and the specimen's upperparts from greenish grey to rusty brown (Fig. 5). The photographs (which are unaltered) match Latham's description of the 'Black-eyed Thrush' in having the nape, wings and tail rusty brown, crown and underparts yellow, rectrices fringed yellow, and bill and legs brownish.

Although fluorescent lighting would not be invented until >100 years after Latham's description (and halogen lighting >50 years later still), the remarkable congruence in the rusty-brown plumage described by Latham and photographed by JJFJJ suggest that Latham initially examined Banks' specimen of *L. melanops* under conditions in some way similar to those in JJFJJ's 2013 photographs, explaining his anomalous description of the 'Black-eyed Thrush'. The conditions concerned are, of course, unknown; although candlelight is a possibility, no photographs of MNHN-ZO-2013-174 were taken in such conditions, or other tests conducted. Irrespective of the above, the two sets of photographs provide a remarkable demonstration of the significance of lighting in assessing the accuracy of Latham's descriptions, as well as those by other authors in the 18th and 19th centuries.

Latham made extensive use of Banks' collection in describing new species and obtained many specimens for his own collection from Banks, as noted by Latham himself (1781), and included many descriptions of birds in Banks' collection in his *General synopsis* (1781–85) and subsequent supplements (Latham 1787, 1801a,b). While in Banks' possession, MNHN-ZO-2013-174 would have been available to Latham to examine. It is informative that Latham described the tail of 'Turdus melanops' as rusty brown; however, in Watling no. 121 and Lambert and Latham's copies, only the pale ventral side of the tail is visible. That Watling no. 121, the original watercolour, shows only the undertail, proves this was not a simple copying error in the copies examined by Latham. That Latham described the dorsal coloration suggests he had another reference to hand.

The Banks provenance of MNHN-ZO-2013-174 and the strikingly similar pose of this specimen to the birds depicted in Watling no. 121 and Lambert (2) no. 65 (head uptilted, bill open and tongue exposed) indicate it was posed to resemble these watercolours when mounted. As the Watling watercolours arrived in England in 1795 and Vieillot (1802) included a plate of MNHN-ZO-2013-174, it must have been mounted in England between 1795 and c.1800, when Latham was preparing his second *Supplement*, with MNHN-ZO-2013-174 arriving in Paris around the same time that the *Supplement* was published, in 1801. That MNHN-ZO-2013-174 was posed to resemble the watercolours that Latham inscribed 'Turdus melanops' and 'Black-eyed Thrush' indicates that MNHN-ZO-2013-174 was identified as a 'Turdus melanops'. As such, Latham could have used MNHN-ZO-2013-174 while it was in Banks's possession to describe 'Turdus melanops'.

Conclusion

Sharpe (1906) identified the Watling watercolours as the basis for, and hence 'types' of, Latham's descriptions in Latham (1801a,b). However, Latham examined the Lambert watercolours first, pre-1801, and subsequently annotated the Watling watercolours after the publication of Latham (1801a,b). Moreover, it is apparent that Latham used the copy of Lambert (2) no. 65 in his own collection (Latham 1781–1832, Pl. 399) to describe 'Turdus

melanops'. However, according to ICZN (1999) an illustration cannot be designated as the type specimen (Art. 72.5.6), only the specimen on which the description was based. Therefore, the Latham watercolour has no type status.

The evidence that MNHN-ZO-2013-174 might represent a syntype of *L. melanops* is highly circumstantial. Although there is no doubt that Latham examined the Lambert and Watling watercolours, it cannot be proven that he examined MNHN-ZO-2013-174, however, given that it came from Banks and is similar to the watercolours, it is quite possible that he did. Moreover, although the photographs of MNHN-ZO-2013-174 taken under halogen lighting suggest an explanation for Latham's anomalous description of rusty-brown plumage for 'Turdus melanops', they do not prove that lighting was responsible for the errors in his description. Further testing under various light conditions might be informative, but is unlikely to yield definitive answers. Although we do not advocate any type status for MNHN-ZO-2013-174, hopefully we have demonstrated its significance in the early taxonomic history of the species.

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