

Systematic notes on Asian birds. 4.¹

A preliminary review of the Pittidae

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Recent taxonomic treatments of Asian taxa of pittas (Pittidae) are discussed and recommendations are made for further evaluation or for awareness of competing hypotheses as to treatment.

Introduction

In preparing the text for a planned 'Synopsis of the Birds of Asia' (see general introduction to the 'Systematic notes on Asian birds': this volume) we compare treatment in the Check-list of Birds of the World, in this case of the pittas (Mayr in Traylor, 1979), with more recent treatments. The changes that have been proposed in such works have been examined, and the context of some proposed changes are clarified. We believe our recommendations are consistent with the conservative tradition of requiring the publication of convincing evidence for change, in as much detail as is needed from case to case. Where our recommendations are at variance with key publications we give the reasons for our views.

In this review of the Pittidae we are fortunate to have a recent, well-researched monograph (Lambert & Woodcock, 1996) upon which to base our comments. At the specific level these authors adopted the proposal of Sibley & Monroe (1990) to treat *Pitta [erythrogaster] dohertyi* Rothschild, 1898, as a full species and themselves elevated *Pitta [granatina] ussheri* Gould, 1877, to specific level. Both these proposals are discussed here, as are a few other points. We are aware that both these proposals have been adopted elsewhere (Inskipp et al., 1996), but we do not find the reasons given for acceptance very compelling.

We are in general agreement with Lambert & Woodcock (1996) on their reductions in the numbers of subspecies that should be recognized.

A second recent monograph, this one restricted to the pittas, approaches them from a different perspective and contains some useful complementary information (Erritzoe & Erritzoe, 1998). This work is more conservative, for example treating *dohertyi* traditionally as a component of *Pitta erythrogaster* Temminck, 1823².

There is one area of study to which we know we may need to return. This has to do with names given to pittas by Buffon (1771-1786) and the identity of the taxa that Buffon discussed, which are depicted in Daubenton's 'Planches Enluménées' that

¹ An invitational series arranged by René W.R.J. Dekker and Edward C. Dickinson under the auspices of the National Museum of Natural History, Leiden, The Netherlands, and the Trust for Oriental Ornithology, U.K.

were incorporated into Buffon's work. Both P.L.S. Müller (1776) and Gmelin (1788), among others, based Latin binomial names on these plates but, for at least one of three plates concerned, the species painted may not have been correctly determined by later authors naming it. We became aware of this issue late in the preparation of this paper, and as fresh study of it may in fact change nothing (and if it did it would be complex enough to merit a paper on its own) we have chosen to acknowledge that this has not been re-examined.

Pitta phayrei (Blyth, 1863)

Treated as monotypic both by Mayr in Traylor (1979) and by Lambert & Woodcock (1996). The latter authors noted that northern birds "apparently become slightly deeper in colour from west to east", and indeed *obscura* Delacour, 1927, was described as much darker and with a blackish nape. We have only seen the type of *obscura* from Lacs Babé, Tonkin, which is insufficient to allow a review of the merits of this form. This may also have been a limitation for Lambert & Woodcock (1996) as *obscura* appears neither in the text nor their index.

This species due to its atypical cryptic, rather than bright, plumage and its 'ear tufts' was described as the type species of the monophyletic genus *Anthocinclia* Blyth, 1863. This was the one genus other than the genus *Pitta* that was retained for the Pittidae by Sclater (1888), in which — *phayrei* excepted — no less than 12 species of *Pitta* were listed as types of proposed genera. Baker (1926) also retained *Anthocinclia* and its submergence does not appear in Delacour & Jabouille (1940), Deignan (1945) or Delacour (1951). It seems to be submerged for the first time in Smythies (1953), who was followed by Deignan (1963), but we have traced no prior proposal or explanation.

Pitta soror Wardlaw Ramsay, 1881

Four subspecies were recognized in the Check-list of Birds of the World (Mayr, 1979), where the range statement omitted published records for Cambodia and known ones for south-east Thailand (King & Dickinson, 1975). Mayr did not accept the distinctness of *P. s. annamensis* Oustalet, 1896, which one of us had recently brought out of synonymy (Dickinson, 1970).

In a recent thorough review of this species based on field studies and 75 museum specimens, six subspecies were accepted including *annamensis* (although not all the characters suggested for it in 1970 were accepted) and a new long-winged form *P. s. flynnstonei* Rozendaal, 1993, from south-east Thailand and neighbouring Cambodia (Rozendaal, 1993). In this paper it is stated that "Dickinson (1970) also included central Laos in the range of *annamensis*". However Dickinson (1970) considered the Bolovens Plateau to lie in southern Laos, or "Bas-Laos" as used by Delacour & Jabouille (1931), and the only birds specifically listed were the two from there so that

² This, like many other references to Temminck, will be found in the References as 'Temminck & Laugier'. Their 'Planches Coloriées' (1820-1839) was a collaboration between Temminck, the ornithologist, and Baron Laugier, the collector and sponsor. By agreement Temminck was solely responsible for new names, for the whole of the text and for selecting the birds to be painted; Laugier was responsible for arranging the production.

this can be true only on an inferential basis, in other words if the "series called *annamensis* in the British Museum" then contained birds from central Laos. The Field Guide to the Birds of South-east Asia (King & Dickinson, 1975) contained a map with Laos split into three parts, hence the reference to central Laos, but of these three the southernmost holds the Bolovens Plateau; see also the map in Thewlis et al. (1998).

Lambert & Woodcock (1996) accepted these six forms, but agreed with Rozendaal (1993) that further collecting might show intergradation to such an extent that recognition of all six may be inappropriate, presumably expecting more evidence to support identifiable patterns of clinal variation within which certain subspecific recognition might not be appropriate.

Pitta guajana (P.L.S. Müller, 1776)

Six subspecies were recognized in the Check-list of Birds of the World (Mayr, 1979), but only four: *P. g. guajana*, *affinis* (Horsfield, 1821), *schwaneri* Bonaparte, 1850, and *irena* Temminck, 1836, are retained by Lambert & Woodcock (1996). The two they treat as in synonymy are *P. g. ripleyi* Deignan, 1946, and *bangkae* Meyer de Schauensee, 1958. As regards the latter it has already been demonstrated that the bird so named probably came from western Java (Mees, 1986), a finding erroneously attributed to van Marle & Voous (1988) by Lambert & Woodcock (1998).

The northernmost race (*ripleyi*) was based on 14 males and nine females with a range from the Isthmus of Kra south to Malacca and Pahang (Deignan, 1946). This range was later reduced to reach south only to Trang (Deignan, 1963) (and from this range we do not know how many specimens were then available). Consistent with this reduction in range peninsular Malayan birds were thereafter treated as *irena* by Medway & Wells (1976), and both races and ranges are shown in Mayr (1979).

However, Lambert & Woodcock (1996) placed *ripleyi* in the synonymy of *irena* "although there is a tendency for birds from peninsular Thailand to have more orange-red in the supercilium than birds from Sumatra". This view may be right; many species seem to vary only clinally within the Malay Peninsula (Wells, pers. comm.), but Deignan's revised views of 1963, as to the distinctness of *ripleyi* which were accepted by Mayr (1979), deserve factual rebuttal and the facts that might support this are not presented. In these circumstances, and in the light of Lambert & Woodcock's own remarks on geographical variation, it would be our preference in this case to retain *ripleyi* as a recognized, if weakly differentiated, northern form, until publication of detailed analysis shows this to be inappropriate.

Mees (1996) considered it better to treat all the birds of Java as nominate *guajana*. Following Lambert & Woodcock's analysis only three well-marked forms would then be recognized (*guajana*, *schwaneri* and *irena*). The conspecificity of these was still questioned by Lambert & Woodcock (1996). If they should be separated the case for recognizing *ripleyi* (presumably as a race of *irena*) would be even stronger.

Pitta erythrogaster Temminck, 1823

Fifteen subspecies were recognized, for our region, in the Check-list of Birds of the World (Mayr, 1979). Lambert & Woodcock (1996) treated *P. e. dohertyi* Rothschild,

1898, from the Sula and Banggai islands, as a separate species (following Sibley & Monroe, 1990), and treated *P. e. obiensis* Hachisuka, 1935, as a synonym of *P. e. rufiventris* (Heine, 1859), but otherwise followed the earlier treatment. The type of *obiensis* has been discussed fairly recently (Greenway, 1987), and indeed it seems appropriate to synonymize this. It would be worth similarly reassessing *P. e. thompsoni* Ripley & Rabor, 1962, which was based on two males from Culion and compared with only three males of *P. e. propinqua* (Sharpe, 1877) from neighbouring Palawan, to which it is undoubtedly very close. Such a reassessment probably requires the assembly of a more substantial sample – which should be available at least for *propinqua*.

The case of *dohertyi* is interesting. It is a relatively distinct taxon, its claims to overall distinction being *shining* upper parts (not remarked upon in the original description) and a black hind collar (although arguably the broad black nuchal collar is no more than the extreme development of a feature that is variable in the species), but it remains more like all the other races of *erythrogaster* than any other species, and if not part of the species it is clearly a close relative. It is, perhaps, a pity that Lambert & Woodcock's map of the races of *erythrogaster* did not include it, for doing so would have demonstrated that its range falls directly between that of the Sulawesi population (*celebensis* Müller & Schlegel, 1845) and those of the Moluccas. Such a distribution pattern lacks coherent reasoning but this did not stop Sibley & Monroe (1990) from separating it. To accept that *dohertyi* is a valid species implicitly requires the separation of the complex into more species.

What seems to have stimulated this first treatment at specific level by Lambert & Woodcock (1996) is a tape recording of a call attributed to it, with considerable confidence (although it was not observed calling) by S. van Balen. Also playback of New Guinea calls failed to stimulate it. Admitting that *dohertyi* may not be conspecific with the New Guinea group of races does not automatically imply that it is not conspecific with the Philippine group or with the Sulawesi group. Lambert & Woodcock (1996) postulated that perhaps *inspeculata* Meyer & Wigglesworth, 1894, in the Talaud group might deserve specific treatment, and if this is correct, and the Talaud bird an isolate, then the nominate Philippine form and its closest allies are probably not conspecific with those of the Sulawesi area or with those from the Moluccas or those from New Guinea and neighbouring islands.

On the evidence available, although it is not wholly conclusive, there is a case for separating *dohertyi*, although firmer evidence would obviously be preferable. More importantly however, this should have been considered as part of an exercise assessing the New Guinea forms as compared to the other groups ones and *dohertyi* against each. The relationships of all these insular forms would also benefit from some interpretation of their dispersal, and perhaps the differing tectonic histories of these islands might throw some light, however speculative these may still be, on the similarities and differences.

Pitta arquata Gould, 1871

Lambert & Woodcock (1996) employed the original spelling *arquata* and said that some authors "refer to this species, in error, as *P. arcuata*". This, although strictly accurate, could have been explained. A brief explanation appeared almost simultane-

ously (Inskipp et al., 1996). A paper drawing attention to Salvadori's unjustifiable emendation was drafted by Lord Cranbrook in or before November 1979 (and sent to several correspondents including E. Mayr, B.E. Smythies, D.R. Wells and E.C.D.), which we believe prompted the editorial footnote in Mayr (1979). As Mayr remarked, the emendation to *arcuata* by Salvadori (1874) had been uniformly adopted for over 100 years so that nomenclatural stability would have been better served by retaining it (Mayr, 1979). However, in accordance with the rules relating to emendations the name *arcuata* was reintroduced in the Birds of Borneo (Smythies, 1981) by Cranbrook. This was supported by a shortened version of the content of the 1979 draft embodied in a note which appeared later (Cranbrook, 1982) (see also Art. 33.2 of the International Code for Zoological Nomenclature (ICZN, 1999)). We believe this spelling is therefore correctly used by Lambert & Woodcock (1996).

Pitta venusta S. Müller, 1835

The species *venusta* was treated in the Check-list of Birds of the World (Mayr, 1979) as including the Bornean form *ussheri* Gould, 1877, just as *P. granatina* Temminck, 1830, was considered to have one race in Borneo and another, *P. g. coccinea* Eyton, 1839, in Sumatra and the Malay Peninsula.

On Sumatra *P. venusta* is a mid-montane form; by contrast *P. g. coccinea* is a lowland form. On Borneo nominate *granatina* and *ussheri* are both lowland birds and they appear to be essentially allopatric. The complex has been reviewed recently (Rozen daal, 1994) and it was concluded that *ussheri* is best treated as a race of *granatina*. We agree with this.

In view of the proximity of their known ranges, Lambert & Woodcock (1996) called them parapatric and believed them to be sufficiently distinct to be considered valid species, and there is a lack of satisfactory evidence of intergradation. Of their calls Lambert & Woodcock (1996) wrote that they "whilst similar to the human ear, are actually quite different in both length and inflection". The acoustic evidence provided was incomplete and we believe that it would be premature to accept this treatment.

Pitta sordida (P.L.S. Müller, 1776)

Eight subspecies were recognized, for our region, in the Check-list of Birds of the World (Mayr, 1979) and these were also accepted by Lambert & Woodcock (1996).

Rightly, Lambert & Woodcock (1996) noted that the four races in and around New Guinea — if one accepts the recommended synonymization of *P. s. hebetior* Hartert, 1930, with *P. s. novaeguineae* Müller & Schlegel, 1845, following Diamond & LeCroy (1979) — are separated from the rest, there being no races in the Lesser Sundas or the Moluccas, and indeed further studies on the distinctness of this group would be useful. Lambert & Woodcock (1996) noted differences in plumage and in nest structure between the groups and characterised the voice differently (but nest and voice data may not yet be on record for all populations).

The distinct chestnut-crowned races may also deserve further study: *P. s. cucullata* Hartlaub, 1843 (Himalayas and mainland south-east Asia), might be a separate

species, perhaps with *P. s. abbotti* Richmond, 1902 (Nicobars³), as an insular race. However *P. s. bangkana* Schlegel, 1863 (Bangka and Belitung Islands), appears intermediate between brown-headed *cucullata* — which occurs as a migrant south to Sumatra — and black-headed *P. s. mulleri* (Bonaparte, 1850)⁴ (of peninsular Malaysia and the Greater Sundas) and provides a connecting link. But ‘pure specimens’ of both *cucullata* (in 1864) and *mulleri* (in 1904) have been recorded on Bangka (Mees, 1986) and Mees suggested that *bangkana* ‘originated through hybridisation’ (presumably between overstaying winter visitors and ‘native’ *mulleri*, although it is unclear why this has not occurred elsewhere where the winter visitors overlap the breeding range of *mulleri* such as in Sumatra or Java). In fact the intermediate birds called *bangkana* are said to be quite variable (Mees, 1986) and the population may not have stabilised. Mees fairly clearly meant interbreeding of closely related subspecies rather than hybridisation between related species although, as indicated above, genetic studies comparing black-crowned populations with chestnut-crowned ones seem desirable.

Pitta brachyura (Linnaeus, 1766) and *Pitta nympha* Temminck & Schlegel, 1850

As Lambert & Woodcock (1996) wrote, there is a general willingness to treat these two as separate species, perhaps within one superspecies taking in both *P. moluccensis* (P.L.S. Müller, 1776) and *P. megarhyncha* Schlegel, 1863. In the Check-list of Birds of the World (Mayr, 1979) it was considered that they form a superspecies separate from *moluccensis*, which in that work was placed, albeit doubtfully, in the same species as *megarhyncha* (which will be discussed below).

The idea of two separate superspecies, consistent with Mayr’s treatment, was developed convincingly in a summary paper on the field identification of these species (Lambert, 1996), with *brachyura* and *nympha* characterized by reduced white in the wing, white superciliaries and smaller size, and distinguished morphologically by the different crown patterns and wing patterns — see photos in Lambert (1996). The size of the gap between the ranges of the two is very substantial (compare maps on pp. 160 and 162 of Lambert & Woodcock), and we accept the views of Mayr (1979) and of Lambert & Woodcock (1996) that they should be treated as valid species.

Pitta moluccensis (P.L.S. Müller, 1776) and *Pitta megarhyncha* Schlegel, 1863

It is apparent that the range of *P. moluccensis* overlaps with neither *P. brachyura* nor *P. nympha*, and all three are migrants. The very significant difference in wing pattern certainly suggests that *moluccensis* is more distant from *brachyura* and *nympha* than these two are from each other.

It is clear that the very similar but larger-billed, specialized mangrove-dwelling *megarhyncha* which overlaps the range of *moluccensis* geographically, but not ecologically, should not be specifically united with it. It apparently has a call quite distinct from the broadly similar clear double whistle calls of the other three. Whether these

³ Incorrectly mapped as Little Andaman by Lambert & Woodcock (1996).

⁴ Bonaparte, 1850, spelled *mulleri* without an umlaut and the widely used derived spelling *muelleri* is incorrect.

two are then linked in a single superspecies with *brachyura* and *nympha* seems to be purely a matter of personal preference.

However, we are convinced of the merits of treating each of the four as a full species by the text and pictures in Lambert (1996). This valuable article included some photographs that also demonstrate a much clearer white throat directly abutting the bill in *megarhyncha* than is found in *moluccensis*; this distinction is not readily apparent in plate 13 of Lambert & Woodcock (1996).

Pitta elegans Temminck, 1836

In the Check-list of Birds of the World (Mayr, 1979) a broad species *Pitta versicolor* is made up of three 'subspecies groups': *elegans* (in the Lesser Sundas, the Moluccas and on small islands off Sulawesi), *iris* Gould, 1842 (of northwestern Australia), and *versicolor* Swainson, 1825 (of eastern Australia, and in winter New Guinea). This treatment was the first to bring all these together after years of little else but isolated accounts of different forms.

The treatment of this group, and by group we mean the broad species *versicolor* which has since been split, has been very varied. Sclater (1888), in his subgenus *Pitta*, of these the nominate subgenus, which concerns us here, included 11 species. These 11 taxa covered the two pairs of species just dealt with above (which account for five of the names: *brachyura*, *nympha*, *moluccensis*, *megarhyncha* and *bertae* Salvadori, 1868), the related African *Pitta angolensis* Vieillot, 1817 (which is outside our range), and five names that concern us in this group: *vigorsii* Gould, 1838, of Banda and Tanimbar (Timor-laut), *concinna* Gould, 1857, of Lombok, *irena* Temminck, 1836 (the name then, incorrectly, being applied to *elegans* Temminck, 1836, as is explained below) of Timor, *crassirostris* Wallace, 1862, of the Sula Islands, and *strepitans* Temminck, 1825 (later found to be a junior synonym of *versicolor* Swainson, 1825) of Australia. The Catalogue of Birds in the British Museum antedated many discoveries and did not, of course, recognize subspecies.

Whitehead (1893) placed *bertae* in the synonymy of *nympha*, and *crassirostris* in the synonymy of *irena* [= *elegans*].

The application of the name *elegans* has been affected by attempts to apply common sense to the names given by Temminck, 1836. In connection with Planche Colorée 591 he used the French and Latin names 'Brève irene' and *Pitta elegans* for this taxon from Timor, and 'Brève élégant' and *Pitta irena* for a Malaysian taxon (which is not part of this group). The problems of consistency of application seem to have come from writers assuming, not unreasonably one might think, that 'Brève irene' was *Pitta irena* and 'Brève élégant', *Pitta elegans*. This may, indeed have been what Temminck intended, but the description given to *Pitta irena* is clearly that of the Malaysian species, which was long known as *Pitta boschii* Müller & Schlegel, 1839⁵ (Hartert, 1902).

Apart from a general review by Whitehead (1893) little was published on the taxa of this group in the period from 1888 to 1930, other than discoveries of new island forms, and no one treated the entire range of the group. It is far from clear whether

⁵ Often referred to as 1845 but see our paper on 'Types of the Family Pittidae', this volume.

there was any consensus on how species limits within this group were perceived. As might be expected the earlier additional taxa were treated as additional species: *P. maria* Hartert, 1896a (Sumba), and *P. virginalis* Hartert, 1896b (Djampea); but as trinomial forms appeared the newer ones were treated as races of various other taxa: *everetti* Hartert, 1898 (of Alor) as a race of *Pitta concinna*; *intermedia* Mathews, 1912 (northern Queensland), and *hutzi* Meise, 1941 (South Nusa Penida), as races of *P. versicolor*; and *plesseni* Meise, 1929 (Kalao Tua) and *kalaoensis* Meise, 1929 (Kalao), as races of *P. brachyura*.

Rensch (1931) wrote of a 'rassenkreis' (a part of the species *brachyura*) which included *concinna*, *maria*, *everetti* and *elegans* in the Lesser Sundas and perceived this 'rassenkreis' to also include *crassirostris*, *vigorsii*, *virginalis*, *kalaoensis*, *plesseni* and *moluccensis*. He considered this 'rassenkreis', separate from a western *brachyura* 'group' and an Australian *versicolor* 'group'. It is this concept, extended to include *brachyura*, that appears to have been followed by Mayr (1944), who erroneously treated Timor birds as *P. brachyura elegans* and Sumba birds as *P. elegans maria*, before summarising under the first of these names.

The two Australian subspecies groups of Mayr (1979) *versicolor* and *iris* are beyond our remit, but we understand that there is strong morphological evidence for treating these distinct groups as separate species (Rensch, 1931; Bruce in White & Bruce, 1986); these seem much stronger for *iris* than for *versicolor*. Although the calls of *elegans* and *versicolor* are alike, that of *iris*, according to Lambert & Woodcock (1996), is quite different. It is also visually quite distinct, lacking buff on the underparts. Indeed Whitehead (1893) considered *iris* to belong to an entirely different group, which we would now call *P. sordida*.

Although *elegans* was treated as a valid species by White & Bruce (1986) the distinctness of this group from the *versicolor* group was not explained and had not yet been explained in print when this was followed by Lambert & Woodcock (1996). As the name *versicolor* Swainson, 1825, antedates the name *elegans* Temminck, 1836, and would have to be used if the two were treated as conspecific, it is unfortunate that no proper study has yet appeared, and the option of treating the two as one species must be retained at least until such a study is put forward. Although we use the title *elegans* above we may elect to exercise the above option in our synopsis if no reasoned published arguments can be found.

At the subspecific level the changes in White & Bruce (1986) compared to Peters's Check-list, submerging *plesseni* and *kalaoensis* in *virginalis*, and treating *everetti* as a synonym of *concinna*, were accepted by Lambert & Woodcock (1996). The latter authors have obviously carefully reviewed the reported distribution of two apparently difficult forms (*vigorsii* and *elegans*) and mapped them in the context of probable migrant records. Without detailed re-examination there seems no reason to disagree with this treatment, but more work is needed to confirm and understand the movements, and limits to the breeding ranges of the forms that migrate.

Generic treatment

Although some writers last century treated the pittas in a number of genera and subgenera (Wallace, 1864; Sclater, 1888; Whitehead, 1893) usually based on grouping

dominant colours, the group has seemed largely homogeneous to more recent writers. An exception, due to its atypical cryptic plumage and characteristic and uniquely extended feathers that appear to produce tufts or ears as extensions of the supercilary stripes, is the eared pitta *Pitta phayrei* (Blyth, 1863). This species was not discussed by Whitehead (1893), who presumably omitted it in error. Whitehead's review is interesting for its discussion of the relationships between his genera and subgenera and of the zoogeography involved.

Although Mayr (1979) submerged *Anthocincla* and treated all pittas in the one genus *Pitta*, following Smythies (1953) and Deignan (1963), and was followed in this by Lambert & Woodcock (1996), and the cryptic plumage may be evidence of neoteny, we hope the matter will be the subject of the detailed review it deserved when it was submerged.

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