A review of smaller Philippine swiftlets of the genus Collocalia

EDWARD C. DICKINSON

The species of smaller Philippine swiftlets Collocalia are here judged two in number, with both White-bellied Swiftlet C. esculenta and Pygmy Swiftlet C. troygoodyi being widespread. C. esculenta is represented by four races, septentrionalis and marginata with rump feathers clearly edged with white, isonota and bagobo with such markings faint or absent. The white-rumped C. troygoodyi evidently does not build edible nests.

In a separate paper (Dickinson 1989) all the larger Philippine swiftlets have been reviewed. The smaller ones, dealt with here, are the white-bellied forms esculenta and marginata, which are treated here as conspecific, and the white-rumped troygoodyi. This paper, unlike that on the larger swiftlets, is not arranged with separate texts for each subspecies.

Many museums cooperated in providing material for this study. In the text they are indicated by the following abbreviations: British Museum (Natural History), Tring, BMNH; Carnegie Museum of Natural History, CM; Delaware Museum of Natural History, DMNH; Field Museum of Natural History, Chicago, FMNH; Museum of Comparative Zoology, Cambridge, Massachusetts, MCZ; United States National Museum, Washington, D.C., USNM.

WHITE-BELLIED SWIFTLET Collocalia esculenta

Synonymy

Collocalia eburnensis: Kutter (1882).
Collocalia esculenta bagobo: Hachisuka (1930), Hachisuka (1934), Peters (1940), Delacour and Mayr (1945), Ripley and Rabor (1958), Rand and Rabor (1960), Medway (1966), duPont and Rabor (1973a).
Collocalia esculenta isonota: Hachisuka (1934), Peters (1940), Delacour and Mayr (1945), Rabor (1955), Medway (1966).
Collocalia esculenta mindanensis: Hachisuka (1941).
Collocalia esculenta septentrionalis: Delacour and Mayr (1945).
Collocalia linchi isonota: Oberholser (1906),
Collocalia linchi: Sharpe (1894), Ogilvie Grant (1895), McGregor (1905c).
Collocalia Linchi: Kutter (1883).
Collocalia marginata: Salvadori (1882), Hartert (1892), Bourons and Worcester (1894), McGregor (1903), McGregor (1904a), McGregor (1904b), McGregor (1905a), Oberholser (1906), McGregor (1909), McGregor (1910), McGregor (1921), Hachisuka (1934), Manuel (1937), Peters (1939), Peters (1940), Medway (1966).
Salangana linchi: McGregor (1905b).
Salangana marginata: McGregor (1905a), McGregor (1906a), McGregor (1906b), McGregor (1907a), McGregor (1907b), McGregor (1907c).

Specific characters
Small, wing up to 107 mm, glossy blue-black or metallic blue-green – not the oily green found in Javan C. linchi – with the crown and upper tail-coverts most glossy, sometimes with edges to feathers of rump whitish, feathers of underparts with white or whitish edges.

No rattle call. Builds mossy nests, bound with salival cement and placed under overhangs or if in caves near their entrances.

Overview
Authors have disagreed on the conspecificity of eastern esculenta, occurring from Sulawesi eastward through the Moluccas and the Lesser Sundas east of Lombok to New Guinea, and western linchi. Recently Somadikarta (1986) has shown that the two both occur in Borneo and are best treated as good species. Once distinguished by the presence of white spots on the inner webs of the rectrices (Oberholser 1906) – which are said to be absent in linchi and typical of esculenta – Somadikarta underlined that neither had such spots in the Bornean and other western populations and differentiated them by colour (linchi being glossy green and esculenta glossy blue) and by the presence or absence of a feather tuft on the hind toe.

Oberholser (1906) treated Philippine birds as linchi, as he found white spots on the rectrices to be absent in marginata and isonota. Later authors discussing esculenta (Salomonsen 1983, Somadikarta 1986) have not made quite clear how the Philippine forms fitted their views. However, the tail spots do indeed seem to be absent and feather tufts do seem to be present on the hind toes (of at least some birds). In addition even the greenest population is not the oily green colour of linchi. The Philippine populations thus belong to the western group of esculenta that, as in Borneo, Sumatra and the Malay Peninsula, lacks the tail spots.

The Philippine races fall into two rather distinct groups based on the presence (marginata) or absence of pale edges to the feathers of the rump (Plate 1); the case for treating these as separate species is re-examined below.

I also review the reportedly anomalous nesting behaviour of isonota. If this
Discussion

Early names and island records

Tweeddale (1878) reported a bird from Luzon, in Darmstadt Museum, that he called faucipaga, saying that it was inseparable from the Javan C. linchi Horsfield and Moore 1854 – which he considered to be the same as C. faucipaga (Thunberg) 1812.

Birds occurring in Cebu, with whitish edges to the feathers of the rump, were named respectively marginata by Salvadori (1882) and cebunensis by Kutter (1882). Kutter (1883) reported a Mindanao bird as Linchi (sic) and indicated that he believed it to be the same as the Luzon bird reported by Tweeddale (1878).

Hartert (1892) had a single skin in the British Museum (Nat. Hist.) (BMNH) that he ascribed to marginata. From Luzon, it had been acquired as part of the Tweeddale Bequest; I have examined it (BMNH 1888.10.1.152) and concur in its identification. As mentioned by Hartert (1892) this appears to be the skin that Tweeddale had seen in, and must have acquired from, Darmstadt. About ten years later marginata was collected at Mariveles in Bataan province, Luzon (McGregor 1903) – removing the remaining doubts about Hartert’s identification of the Darmstadt specimen.

Subsequent island records of marginata – known from Cebu and Luzon were: Masbate (Bourns and Worcester 1894), Mindoro (McGregor 1904a), Calayan (McGregor 1904b), Sibuyan (McGregor 1905a), Banton (McGregor 1906a), Tablas (McGregor 1906b), Bohol (McGregor 1907b), Camiguin Norte – sight record – and Babuyan Claro (McGregor 1907c), Polillo (McGregor 1909, 1910), Panay (McGregor 1921), Palawan (Manuel 1937, 1939), Mactan (Peters 1939), Samar (Dupond 1942, Rand and Rabor 1960), Negros (Rabor 1952), Camiguin Sur (McClure and Ledavit 1972), Dinagat (DuPont and Rabor 1973b), Siargao (sight record – duPont and Rabor 1973b) and Leyte (Parkes 1973). Meanwhile linchi – previously known from Mindanao – was reported from Bongao (Sharpe 1894), northern Luzon (Ogilvie Grant 1895, McGregor 1904a, 1905b) and Mindoro (McGregor 1905c).

Some recent records were given only as C. esculenta (Calagna-an and Gigantes: Alcala and Sanguilla 1969; Carabao: Alcala and Alviola 1970) and require review as to the form occurring, although the geographical probability in both cases is marginata.

Taxonomy

Oberholser (1906) placed cebunensis in the synonymy of marginata and introduced the name isonota for the population of northern Luzon. Struever (1925) considered both cebunensis and isonota to be synonyms of marginata.

Hachisuka (1930) described bagobo from Mt Apo, and later (Hachisuka 1934) considered marginata distinct from esculenta for which he maintained the Philippine races isonota and bagobo. Peters (1940) followed Hachisuka (1934) on this. Hachisuka (1941) described mindsetitis from “Tumadgo’” (= Tumado Point), south-east Mindanao, across Davao Gulf about 110 km east of Mt Apo.

Delacour and Mayr (1945) reviewed the situation and considered marginata a geographical race of esculenta occurring from the lowlands of central Luzon south to Cebu and Bohol, and named the population from Babuyan, Calayan and Camiguin Norte septentrionalis – and thus occurring to the north of isonota in the highlands of northern Luzon. The population of Mindanao and Bongao they considered bagobo. Apparently no specimen of mindsetitis, which they synonymised, was available to them. The Pulawan race – although differing by its ‘very long tail’ – was left unnamed.

Ripley and Rabor (1958), with six fresh specimens from Mindoro, considered them intermediate between isonota and bagobo but closer to the latter.

Medway (1966) kept marginata as a separate species only on the grounds of sympathy. He noted that esculenta and marginata had an identical type of nest and shared the inability to utter the rattle call.

Geographical variation

Luzon records of marginata are from the central and southern parts; isonota appears to be confined to the northern highlands (specimens from Ivisan, Mt Data, Zigzag Hill and Mt. Santo Tomas, Baguio and Haight in the Oaks). Birds from both Pampanga in central Luzon and Sorsogon in southern Luzon are typical of marginata but birds from Bataan – perhaps from the slopes of Mt Mariveles – show only faint white edges to the rump feathers and suggest intergradation.

Both marginata and bagobo have been collected in Mindoro: marginata over mangroves and bagobo at over 1,500 m (Ripley and Rabor 1958). In Luzon and Mindoro isonota and bagobo, with uniform rumps, would appear to be representative montane forms.

Interestingly, and perhaps in contradiction to the above, birds with uniform rumps are more frequent in collections from Mindanao, and where there is evidence of intergradation (i.e. faint white edges on the rump feathers), this has been seen essentially on montane birds (from Mt Apo, Mt Malindang and Mt Katanglad and near Gingoo). Intergradation is similarly suggested in birds from Camiguin Sur and Dinagat.

The type of mindsetitis was a male collected on 7 April 1930 by Y. Nakamura. This cannot now be found but the female taken that day (DMNH 36283) has been examined. The race was based on a shorter wing length, not on plumage differences, and it has generally been treated as a synonym of bagobo. The female examined suggests this is appropriate.

Plate 1 shows examples of marginata-type birds from Calayan (septentrionalis), Bataan and Cebu (both marginata) as well as birds with
uniform rumps from Benguet (isnotna), Mindoro, Mindanao and Bongao (bagobo).

Nesting

Nests ascribed to linchi or isonota have been reported from the highlands of northern Luzon by McGregor (1904a) and Rabor (1955). McGregor (1905b) reported in detail on two nests of isonota. An Igorot boy had told him this swiftlet nested on the ground and McGregor did not believe this until he saw two nests. He wrote:

The first nest was well hidden among ferns on a gently sloping hillside and was on the ground. It is composed for the most part of dry moss; the uphill side is thin and has a few lichens mixed with moss; a few dry grass stems also enter into its composition, but the glutinous substance is almost entirely wanting.

The second nest, situated about 200 yards from the first, was similarly placed beneath weeds and ferns. This nest is composed of the lichen Unea. The outer rim is well rounded and along the uphill side is a considerable patch of the characteristic glutinous material.

The second nest held two well-fledged young.

Reminiscent of this is an account from montane Mindoro in Mearns’s unpublished diaries (held in the USNM library), although it is perhaps of a bigger species:

When Messrs. Merrill and Hutchinson were on the main ridge of Mount Halcon, chopping a trail towards the main peak of Halcon, on Nov. 19, 1906, they found the weather partially clear with occasional moments of sunshine; then they flushed a ‘medium-sized swift’ from the heather, where it seemed to have a nest as it continually flew at them in great perturbation. I had the same experience two days later, but found no nest.

Rabor (1955) reported a nest on Mt. Data but no birds were taken at the nest site and the nest, which was a moss nest that, unusually, had a lining of feathers, was not recovered.

Nests of bagobo have been recorded on Mt. Malindang, Mindanao, where they were moss nests on the underside of the steep roof of the tribal worship house (Rand and Rabor 1960), and inside the shallow caverns and crevices of the steep and sheer rocky cliffs of Bongao (duPont and Rabor 1973a).

Nests ascribed to marginata have been reported from Sibuyan by McGregor (1905a) as on the face of one of three boulders forming an enclosure and as composed of blackish-brown hairlike moss cemented with the characteristic glutinous saliva; from Cebu (McGregor 1907a), where the nests were said to be of sandy mud; from Bohol (McGregor 1907b) in a large cave; from Polillo (McGregor 1910) in a small cave; from Panay (McGregor 1921) in a small cave and composed of fibres of Unea and a few other fine plant stems, fastened together and to the rock wall by means of a small quantity of the glutinous substance; and from Negros (Rabor 1952, 1954, 1977) in shallow cavities or on the rock walls of streams and described as half cups composed of plant fibres and moss well glued together with the birds’ hardened saliva.

The nests of the Palawan form have been discussed by Manuel (1937, 1939), and were described as consisting of dark mossy materials held together by a scanty gelatinous substance.

In sum, virtually all the nests are described as moss nests and they are rarely, perhaps never, deep inside caves.

Subspecific characters

Delacour and Mayr (1945) and Parkes (1960) have provided the best comments on the subspecific variation of these forms. Although I formed the impression that septentrionalis and marginata were more blue-green glossed and isonota and bagobo more steel-blue, I had less material together at any one time than Parkes (1960), who could not see a consistent difference.

The following is a key to the Philippine forms of scutella (including marginata), although intergrading examples occur:

- feathers of rump clearly edged with white:
  - green above, underparts whiter ........................................ septentrionalis
  - underparts duller ...................................................... marginata

- feathers of the rump faintly or not edged with white:
  - underparts whiter ...................................................... isonota
  - underparts browner .................................................... bagobo

The unnamed Palawan form, of which few specimens are known, is reputed to be darker ventrally than any other specimens of this species (Parkes 1960), and has been reported with and without white edges to the rump feathers (Delacour and Mayr 1945).

Range in the Philippines

subsp. ?: Palawan.
- isonota: the highlands of northern Luzon.
- marginata: Banton, Bohol, Camiguin Sur (unpublished), Cebu, Dinagat, Guimaras (Dickinson et al. 1989), Leyte, central Luzon, Mactan, Masbate, Mindoro, Negros, Panay, Polillo, Romblon (unpublished), Samar, Siargao, Sibuyan and Tablas. Birds from Calagna-an, Carabao and Gigantes are probably this race. Birds from Camiguin Sur and Dinagat are intermediate with bagobo.
- bagobo: Bongao, Mindanao and montane Mindoro.

Material examined: Bohol 2, Bongao 14, Calayan 6, Camiguin Sur 8, Cebu 33, Dinagat 18, Fuga 15, Guimaras 2, Leyte 4, northern Luzon 16, rest of
Luzon 13; Mactan 2, Mindanao 27 (including 3 synotypes of bagobo and 1 toptype of mindanensis), Mindoro 1, Negros 5, Palawan 1, Polillo 1, Romblon 3, Samar 2 and Sibuyan 1.

**PYGMY SWIFTLET** *Collocalia troglodytes*

**Synonymy**

*Collocalia troglodytes*: Gray (1845), Walden (1875), Tweeddale (1877), Sharpe (1877), Sharpe (1888), Steere (1890), Bourns and Worcester (1894), Ogilvie Grant (1897), McGregor (1903), McGregor (1909), Manuel (1937), Rabor (1938), Rabor (1954), Luck (1956), Meyer de Schauensee and duPont (1962), Medway (1966), duPont and Rabor (1973b), Rabor (1977), Salomonsen (1983).

*Salangana troglodytes*: McGregor (1906a), McGregor (1907b).

**Specific characters**

Small, wing 86–96 mm; glossy black above with a clearly delineated white rump band (in which the feathers show the narrow black shafts) and a white abdomen.

Echolocation ability unknown. Makes vegetable nests bound with strands of salival cement.

Plate 2 shows the white rump in comparison with a specimen of White-bellied Swiftlet *Collocalia spodiopygia eichhorn* Hartert 1924 from the Bismarck Archipelago and — to show relative size — a specimen of Edible-nest Swiftlet *Collocalia faciphaga germani* Oustalet 1878.

**Overview**

The distinctness of this species has never been questioned, so no attempt has been made to review series to look for geographical variation.

However, it has been suggested that it builds an edible nest and this is shown below to be incorrect. It is thought not to echolocate, but this is not yet proven although nests have been reported up to 50 feet (15 m) inside caves.

**Discussion**

Described from the Philippines by Gray and Mitchell in Gray (1845), the description depending upon the plate by Mitchell, and listed for Luzon by Walden (1875), it has subsequently been reported from many islands: Mindanao (Tweeddale 1877), Panay (Sharpe 1877), Palawan (Sharpe 1888), Guimaras, Marinduque and Negros (Steere 1890), Cebu, Masbate, Mindoro, Romblon, Samar, Sibuyan and Siquijor (Bourns and Worcester 1894), Leyte (Ogilvie Grant 1897), Ticao (McGregor 1903), Banton (McGregor 1906a), Bohol (McGregor 1907b), Catanduanes (Manuel 1937), Gigantes (Rabor 1938), Dinagat (duPont and Rabor 1973b) and Siargao — sight record (duPont and Rabor 1973b).

**Nesting**

Details appear in the notes of Bourns and Worcester in McGregor (1909). They considered that it built edible nests, always in caves, composed chiefly or entirely of secretion from their mouths.

More recent, consistent and thus almost certainly more accurate reports are those of Rabor (1954), who found nests in small water tunnels with the
inside of the nest made of saliva strands and the outside of moss and vegetable fibre; Meyer de Schauensee and du Pont (1962), who reported nests about 50 feet into the cave and made of rootlets and tendrils held together with saliva; and Rabor (1977), who described the nest as a half cup attached on one side to the wall of the cave, composed of matted hardened strands of saliva that appeared white and translucent, with reinforcements of plant fibres, well coiled and matted together.

Salomonsen (1983) suggested that the nest was more or less edible and cited Lack (1956) and Medway (1966). In fact those known to Medway – taken in Guimaras by Bourns and Worcester – were ‘bracket-shaped nests constructed of fibrous vegetable material, apparently including seaweed, held together by strands of firm nest cement’. But Medway did quote the notes of Bourns and Worcester given by McGregor (1909), which suggested that the nests are usually edible. However, it seems certain – given the nature of most recent evidence – that Bourns and Worcester were commenting on nests found in a cave housing more than one species, as suggested by Manuel (1937).

Range in the Philippines

Banton, Bohol, Catanduanes, Cebu, Dinagat, Gigantes, Guimaras, Leyte, Luzon, Marinduque, Masbate, Mindanao, Mindoro, Negros, Palawan, Panay, Romblon, Samar, Siargao, Sibuyan, Siquijor and Ticao.

Material examined Luzon 3, Marinduque 1, Mindanao 2.

Great encouragement was given by the Earl of Cranbrook, who was kind enough to visit the British Museum (Natural History) twice and share with me his knowledge of these swiftlets when I was working on some of the more difficult issues of this whole group. Thanks to the interest of the authorities at the British Museum it has been possible to bring together there many skins of Collocalia exclata. Study space was kindly made available there and much help was received from Messrs Graham Bowles, Michael Walters and Derek Read. For making swiftlet skins available on loan my thanks go to Dr Storey Olson, Messrs. Charles Ross and Ralph Browning at the USNM, Dr Raymond A. Paynter at MCZ, Dr David Niles at DMNH, Dr Kenneth Parkes at CM, Mrs Mary LeCroy at AMNH, Dr John Fitzpatrick and Mr David Willard at FMNH. At one stage or another this paper has been reviewed by the Rt. Hon. the Earl of Cranbrook, Des Robert S. Kennedy and Kenneth C. Parkes and by Mrs Mary LeCroy and Mr Ralph Browning. Julie Gray very kindly helped prepare the final typescript.

REFERENCES


1989


Gray, G. R. (1845 [1844–49]) The genera of birds; comprizing their generic characters, a notice of the habits of each genus and an extensive list of species referred to several genera. 5 vols. London: Longmans.


A breeding record of the Giant Pitta
Pitta caerulea from Thailand

PHILIP D. ROUND, UTHAI TREESUCON
and JONATHAN C. EAMES

An occupied nest of Giant Pitta _Pitta caerulea_ was studied during July-August 1988 at the Khoa Pra Bang Khram Non-Hunting Area, southern Thailand. The locations of four other disused nests, thought to be this species, are also described. This appears to be the first documented nesting of the species. Earthworms and land snails _Cyclopoma_ were the predominant food items brought to the nestlings. Although the Giant Pitta appears primarily restricted to lowland forests, which have been almost completely destroyed in southern Thailand, the occurrence of birds in secondary growth, together with some former records of birds in hill slopes, suggests that the species may persist elsewhere in protected areas in southern and perhaps even south-western Thailand.

The Giant Pitta _Pitta caerulea_ is a Sunda subregion endemic which is known from Tayov in Burma (Smythies 1953), south through Peninsular Thailand and Peninsular Malaysia to Sumatra and Borneo. Two races are described, _P. c. caerulea_ throughout the mainland and in Sumatra, and _P. c. host_ in Borneo (Chasen 1935).

This enigmatic species is relatively seldom encountered in the field and remains one of the least known members of its genus. It was said by Davison to be unlike other pittas in that, when disturbed, it would fly off low but rapidly, and not alighting within 200 or 300 yards (Hume and Davison 1877). Even its call was unknown until 1985, when in March N. J. Redman (in litt.) called out a male in Taman Negara, Peninsular Malaysia, by imitating a whistle he heard, and in July J. W. Hall and G. C. Yong taped a long series of whistles at Sepilok, Sabah, East Malaysia (J. W. Hall in litt.). Almost nothing is known of its ecology. The collection of a half-grown nestling in Perlis, Malaysia, in early November (Medway and Wells 1976) and the collection of young attributed to this species in March 1834 at an unrecorded altitude on Mt Singgalang, Padang Highlands, Sumatra (Muller and Schlegel 1840) are the only documented fragments of breeding evidence. A nest discovered on Fraser’s Hill, Malaysia, and provisionally attributed to this species (Medway and Wells 1976) was later determined to be that of a previously undescribed subspecies of Rusty-naped Pitta _Pitta oatesi_ (King 1978). Surveys of Gurney’s Pitta _Pitta gurneyi_ and other lowland forest birds carried out in and around the Khoa Pra Bang Khram Non-Hunting Area (also known as Khoa Noi Chuchi), Krabi and Trang provinces, southern Thailand, have also revealed the presence of Giant Pitta there. We give details of these sightings and provide the first documented description of the nesting of the species.

The first indications of the presence of Giant Pitta at Khoa Noi Chuchi