Taxonomic Round-up

Yet another new species from Peruvian white-sand forests...!
The remarkable white-sand (*varillal*) forests of the Allpahuayo-Mishana National Reserve, just west of Iquitos, Peru, have already yielded a handful of new species in recent years, including a *Zimmerius* tyrannulet (*Cotinga* 17: 11) and a *Percnostola* antbird (*Cotinga* 18: 15), and now *Polioptila clementsi*. To date, the new gnatcatcher is known only from the recently created reserve, and is rare even there (we have already remarked on its imperiled conservation status: see *Cotinga* 18: 11–12). Indeed, the authors of the type description recommend that *P. clementsi* be categorised as Critically Endangered, as suitable habitat within its restricted range continues to be degraded and destroyed. Comparisons of morphological and vocal characters have confirmed that the new species, named for the recently deceased James Clements (in recognition of his financial contribution to the protection of the area), is a member of the *Polioptila guianensis* complex, which comprises at least three poorly known, allopatric taxa ranging from the Guianas and the rio Negro region through much of Amazonia south of the Amazon. Roughly equivalent levels of phenotypic differentiation are documented for all taxa east of the Andes, including the new species. Given that some other species complexes in the genus comprise sister taxa showing lower levels of phenotypic differentiation, both morphologically and vocally, the authors of the new species have recommended that the Guianan Gnatcatcher *P. guianensis* be henceforth considered to comprise three species, with in addition to 'nominate' *guianensis* in the Guianas, *P. facilis* (in Venezuela and north-east Brazil) and *P. paraensis* (in east Amazonian Brazil).

- Whitney, B. M. & Alvarez Alonso, J. (2005) A new species of gnatcatcher from white-sand forests of northern Amazonian Peru with revision of the *Polioptila guianensis* complex. *Wilson Bull.* 117: 113–127.

Some insights into the taxonomy of Atlantic Forest *Scytalopus*
Whilst workers have appreciated for over two decades the complexity of *Scytalopus* populations in the Andean chain, it is only more recently that those working in the Atlantic Forest have begun to appreciate the taxonomic problems inherent to this group in the latter region. Now, Giovanni Maurício has described a new species, *Scytalopus pachecoi* (named for Fernando Pacheco, in honour of his great many contributions to modern Brazilian ornithology), from three highland regions of southernmost Brazil and adjacent extreme north-east Argentina. The new species is separable from both *S. speluncae* and *S. novacapitalis* on the basis of plumage and vocalisations, although it is arguably closest to the latter species in morphology. Furthermore, the author draws attention to potentially significant differences between northern and southern populations of *S. speluncae*, which may lead to their recognition as separate species in the future. Newly discovered populations of *Scytalopus* in Minas Gerais and Bahia may, on the basis of current evidence, also represent undescribed species. Nonetheless, it also seems likely that further work will build substantially on that reported here, as the distribution, vocalisations and plumages of east Brazilian *Scytalopus* become increasingly better known, perhaps leading to further substantial refinements in our knowledge as it currently stands.

- Maurício, G. N. (2005) Taxonomy of southern populations in the *Scytalopus speluncae* group, with description of a new species and remarks on the systematics and biogeography of the complex (Passeriformes: Rhinocryptidae). *Ararajuba* 13: 7–28.

And another new species of *Scytalopus* from the Colombian Andes
Scytalopus stilesi (named for the many contributions to Colombian and Neotropical ornithology of Gary Stiles) is endemic to the central Colombian Andes in the dptos. of Antioquia, Caldas and Risaralda, where it inhabits cloud forests at c.1,400–2,100 m elevation. The new species has been suggested to be Near Threatened, and is distinguishable from closely related taxa on the basis of vocalisations, DNA and distribution. *S. stilesi* appears to occur in sympatry with *S. latrans*, *S. spillmanni* and *S. atratus*, but is somewhat ecologically segregated from all three.

- Cuervo, A. M., Cadena, C. D., Krabbe, N. & Renjifo, L. M. (2005) *Scytalopus stilesi*, a new species of tapaculo (Rhinocryptidae) from the Central Cordillera of Colombia. *Auk* 122: 445–463.

Planalto Foliage-gleaner is not a *Philydor*
A recent paper, by Mark Robbins and Kevin Zimmer, contends on the basis of vocal, plumage and morphological evidence that *Philydor dimidiatum* (Planalto Foliage-gleaner) belongs not in the large genus *Philydor*, but in *Syndactyla*. Furthermore, the authors also found sufficient evidence to suggest that the genus *Simoxenops* (the recurvebills) also be subsumed within *Syndactyla*. A

number of changes to the specific names of the taxa involved are required when Robbins and Zimmer's suggestions are followed.

- Robbins, M. B. & Zimmer, K. J. (2005) Taxonomy, vocalisations and natural history of *Philydor dimidiatum* (Furnariidae), with comments on the systematics of *Syndactyla* and *Simoxenops*. *Bull. Brit. Orn. Club* 125: 212–228.

A phylogeny for the antpittas

Phylogenetic relationships among antpitta genera have been studied using mtDNA sequence data. The clade representing the traditional antpitta genera (*Grallaria*, *Grallaricula*, *Hylopezus*, *Myrmothera* and *Pittasoma*) was found to be paraphyletic and a previously unreported relationship, that of *Pittasoma* being the sister genus to *Conopophaga* (Conopophagidae), was strongly supported. The remaining antpitta genera form a fully resolved and well-supported monophyletic lineage containing two major subclades: the first consisting of the genus *Grallaria* and the second has *Hylopezus* as sister genus to *Myrmothera*, with *Grallaricula* as their sister genus.

- Rice, N. H. (2005) Phylogenetic relationships of antpitta genera (Passeriformes: Formicariidae). *Auk* 122: 673–683.

Separate phylogenies for the genus *Pionopsitta* (and *Pteroglossus*)

A recently published phylogeny of the genus *Pionopsitta*, using several other genera of short-tailed parrots as outgroups, found that these parrots could not be considered a monophyletic grouping and recommended that the genus *Gypopsitta* be resurrected for those eight species in Central America, the Chocó and Amazonia, thus in fact leaving only Pileated Parrot *P. pileata* within *Pionopsitta*. Speciation events within this group of parrots seem largely to have been determined by geotectonic events, marine transgressions and river dynamics. A separate phylogeny of *Pionopsitta* also revealed the basal and unique position of *P. pileata*. The latter study, which also combined a study of toucans, confirmed the early divergence of Serra do Mar (Atlantic Forest) taxa in both *Pionopsitta* and *Pteroglossus*. This study further supported the results of another recent genetic study (see *Cotinga* 24: 9–10) which suggested that the genus *Baillonius* nestles well within *Pteroglossus* and that the former should subsumed within the latter.

- Ribas, C. C., Gaban-Lima, R., Miyaki, C. Y. & Cracraft, J. (2005) Historical biogeography and diversification within the Neotropical parrot genus *Pionopsitta* (Aves: Psittacidae). *J. Biogeogr.* 32: 1409–1428.
- Eberhard, J. E. & Bermingham, E. (2005) Phylogeny and comparative biogeography of *Pionopsitta* parrots and *Pteroglossus* toucans. *Mol. Phyl. & Evol.* 36: 288–304.

Kalinowski's Tinamou: the species that never was

Kalinowski's Tinamou *Nothoprocta kalinowskii* has one of the strangest distributions of any Peuvian bird, despite being known from just three specimens, and has long been considered highly threatened with extinction, if indeed it still persisted. Following a detailed analysis of the type specimen and other relevant material, Niels Krabbe and Tom Schulenberg have concluded that *N. kalinowskii* must be considered an invalid species and that the name represents a junior synonym of *N. ornata branckii*. This finding has the happy outcome of removing one species from the list of those considered on the verge of extinction.

- Krabbe, N. & Schulenberg, T. S. (2005) A mystery solved: the identity and distribution of Kalinowski's Tinamou *Nothoprocta kalinowskii*. *Bull. Brit. Orn. Club* 125: 253–260.

New insights into the correct generic placement of some Neotropical eagles

A recent attempt to reconstruct a phylogeny of the tribe Aquilini (eagles with fully feathered tarsi) using both mitochondrial and nuclear DNA has provided some highly congruent and interesting results. Monophyly of the Aquilini relative to other birds of prey was confirmed. For Neotropical taxa, the following results are most interesting: all polytypic genera within the tribe, *Spizaetus*, *Aquila*, *Hieraaetus*, proved to be non-monophyletic, whilst *Spizastur melanoleucus* and *Oroaetus isidori* nestled among the New World *Spizaetus* species and, it is recommended, should be merged with the latter genus.

- Helbig, A. J., Kocum, A., Seibold, I. & Braun, M. J. (2005) A multi-gene phylogeny of aquiline eagles (Aves: Accipitriformes) reveals extensive paraphyly at the genus level. *Mol. Phyl. & Evol.* 35: 147–164.

Whither the way forward in defining species limits in antbirds?

Three papers in a recent issue of *Auk* examine problems of defining species limits in antbirds. A study of five populations of Variable Antshrike *Thamnophilus caerulescens* in southern South America identified a clinal variation in the loudsongs of males of the different populations which, in turn, was coincident with genetic variation in some of the same taxa uncovered by a companion DNA study focusing on the Bolivian populations. The Islers *et al.* recommend that, in future, at least three different vocal characters be studied in works that seek to identify new species-level taxa amongst Thamnophilidae, but nonetheless defend the underlying importance of vocal characters in taxonomic work on antbirds. As an introduction to the other two works, Remsen provides an overview of the point we have currently reached in determining species limits, and the importance therein

of vocal characters, for those working within the confines of the Biological Species Concept.

- Brumfield, R. T. (2005) Mitochondrial variation in Bolivian populations of Variable Antshrike (*Thamnophilus caerulescens*). *Auk* 122: 414–432.
- Isler, M. L., Isler, P. R. & Brumfield, R. T. (2005) Clinal variation in vocalizations of an antbird (Thamnophilidae) and implications for defining species limits. *Auk* 122: 433–444.
- Remsen, J. V. (2005) Pattern, process, and rigor meet classification. *Auk* 122: 403–413.

A new genus for the Solitary Cacique

Recent attempts to reconstruct a phylogeny for the Icteridae have revealed the strange and isolated position of the Solitary Cacique *Cacicus solitarius*. The phylogenetic data currently available suggest that *solitarius* cannot be placed in either of the available genera, *Cacicus* or *Archiplanus*, which has led Rosendo Fraga to erect a new genus for the species, *Procacicus*.

- Fraga, R. M. (2005) A new generic name for the Solitary Cacique. *Bull. Brit. Orn. Club* 125: 286–287.

Was the Hispaniolan macaw a myth?

Historical accounts from Hispaniola in the 16th century have been misinterpreted since the late 19th century as indicating that three species of parrot once occurred on the island, amongst which was a macaw (*Ara*). Fresh analysis of these accounts, by Storrs Olson, has revealed that only two parrots were described, and that these correspond with the extant *Amazona ventralis* and *Aratinga chloroptera*, thereby refuting the existence of a macaw on Hispaniola in recent history.

- Olson, S. L. (2005) Refutation of the historical evidence for a Hispaniolan macaw (Aves: Pittacidae: *Ara*). *J. Carib. Sci.* 41: 319–323.

A cryptic species of barbet?

An attempt to reconstruct the phylogeny of the Black-spotted Barbet complex (which comprises three Amazonian taxa, *Capito niger*, *C. auratus* and *C. brunneipectus*) revealed that all three might be considered species, but that, additionally, within *C. auratus* there are two reciprocally monophyletic groups (and perhaps species) separated by the Amazon, Solimões and Ucayali rivers. These rivers appear to serve as barriers to mtDNA gene flow between populations of *C. auratus*. Plumage coloration was not informative in reconstructing a phylogeny for the group and several subspecies of *C. auratus* named on the basis of such coloration were not monophyletic based on mtDNA comparisons.

- Armenta, J. K., Weckstein, J. D. & Lane, D. F. (2005) Geographic variation in mitochondrial DNA sequences of an Amazonian nonpasserine: the Black-spotted Barbet complex. *Condor* 107: 527–536.

New ideas concerning relationships amongst raptors

Phylogenetic relationships for birds of prey in the family Accipitridae have been assessed using both mitochondrial genes and one nuclear intron. Representatives of all 14 Accipitridae subfamilies were sampled, especially eagles (booted eagles, sea eagles, harpy eagles and snake eagles) and Old World vultures. Multiple well-supported relationships among accipitrids were identified *contra* to those traditionally recognised using morphology or life-history traits. Results of relevance to Neotropical taxa include the discovery that harpy eagles were found to be non-monophyletic, and Gymnogene *Polyboroides typus* and Crane Hawk *Geranospiza caerulescens* are not close relatives, but an example of convergent evolution.

- Lerner, H. R. L. & Mindell, D. P. (2005) Phylogeny of eagles, Old World vultures, and other Accipitridae based on nuclear and mitochondrial DNA. *Mol. Phyl. & Evol.* 37: 327–346.

A phylogeny for the whitestarts

Mitochondrial sequences from the cytochrome-*b*, ND2 and ND3 genes have been used to reconstruct a phylogeny for the whitestarts *Myioborus*. Reconstructions based on maximum parsimony, maximum likelihood and Bayesian methods produced similar results and suggested a northern origin for the genus. The lower montane species, *M. miniatus*, is a sister taxon to a clade in which all taxa occupy upper-montane habitats. The highland taxa diverged early and have produced two well-defined monophyletic lineages, a Central American–northern Andean clade formed by *M. albifrons*, *M. ornatus* and *M. melanocephalus*, and a Pantepui clade comprising *M. castaneocapillus*, *M. albifacies*, *M. cardonai*, and probably *M. pariae*. *M. brunniceps*, *M. xavivertex* and *M. torquatus* also clustered within the upper-montane clade but without clear relationships to other taxa.

- Peréz-Emán, J. L. (2005) Molecular phylogenetics and biogeography of the Neotropical redstarts (*Myioborus*; Aves, Parulinae). *Mol. Phyl. & Evol.* 37: 511–528.

Genetic research into the Vitelline Warbler...

Recent analyses of the relationships of the Vitelline Warbler *Dendroica vitellina*, which is endemic to the Cayman and Swan Islands, in the western Caribbean, using mitochondrial and nuclear DNA has confirmed the taxon's sister relationship to Prairie Warbler *D. discolor*, and that the two subspecies currently recognised within the Cayman Islands, at least, are warranted.

- Markland, H. M. & Lovette, I. J. (2005) Phylogenetic affinities and inter-island differentiation in the Vitelline Warbler *Dendroica vitellina*, a West Indian endemic. *Ibis* 147: 764–771.

...and the genus *Tangara*

The genus *Tangara* has recently been investigated using samples of both mitochondrial and nuclear DNA. The genus proved to be monophyletic and to consist of two main clades, and the data confirm the monophyly of most recognised species groups, although within two currently recognised species, levels of DNA sequence variation between named subspecies were much larger than expected, namely *Tangara punctata* and *T. mexicana*, suggesting that multiple species are involved. Three species show unusually large genetic variation between populations separated by the Andes, namely *T. labradorides*, *T. arthus* and *T. gyrola*. In contrast, others are only weakly differentiated from their sister species. The associated biogeographic analyses indicated that many early speciation events occurred in the Andes.

• Burns, K. J. & Naoki, K. (2004) Molecular phylogenetics and biogeography of Neotropical tanagers in the genus *Tangara*. *Mol. Phyl. & Evol.* 32: 838–854.