

Cotinga 23

Taxonomic Round-up



More on hybrid hummingbirds

Gary Graves' work on hybrid hummingbirds continues: amongst his most recent publications is an analysis of *Amazilia bangsi*, a taxon known from a single specimen collected in Costa Rica and subsequently thought to represent an aberrant *A. rutila*, but which Graves considers to be a hybrid between the latter species and *A. tzacatl*. In a second paper, Graves goes on to describe a new intrageneric hybrid, this time from the genus *Heliodoxa*, based on specimen material from western Ecuador.

- Graves, G. R. (2003) Diagnoses of hybrid hummingbirds (Aves: Trochilidae). 12. *Amazilia bangsi* Ridgway, 1910, is an intrageneric hybrid, *Amazilia tzacatl* × *Amazilia rutila*. *Proc. Biol. Soc. Wash.* 116: 847–852.
- Graves, G. R. (2004) Diagnoses of hybrid hummingbirds (Aves: Trochilidae). 13. An undescribed intrageneric combination, *Heliodoxa imperatrix* × *Heliodoxa jacula*. *Proc. Biol. Soc. Wash.* 117: 10–16.

More than two species of Orchard Orioles?

A mtDNA study of a subspecies pair in the Orchard Oriole group: nominate *Icterus spurius*, which is a long-distance migrant that breeds in eastern North America, and Fuertes's Oriole *I. s. fuertesi*, a short-distance migrant that breeds in Veracruz, Mexico, suggests that the two taxa represent species.

- Baker, J. M., López-Medrano, E., Navarro-Sigüenza, A. G., Rojas-Soto, O. R. & Omland, K. E. (2003) Recent speciation in the Orchard Oriole group: divergence of *Icterus spurius spurius* and *I. s. fuertesi*. *Auk* 120: 848–859.

Recent changes to the AOU checklist

We do not usually report on changes to the *Check-list of North American birds*, published by the

AOU, but the 2003 supplement contains a number of interesting revisions. Thus, the Anseriformes and Galliformes (the Galloanseres) are moved to a position between the Tinamiformes and Gaviiformes; Galápagos Heron *Butorides sundevalli* is lumped with Striated Heron *B. striatus*; New World pigeons of the genus *Columba* are now placed in the genus *Patagioenas*; New World screech-owls are now placed in the genus *Megascops* (except Flammulated Owl *Otus flammeolus*); Cuban Screech-owl (previously treated as *Otus lawrencii*) is returned to the genus *Gymnoglaux* and renamed Bare-legged Owl; the genera *Euphonia* and *Chlorophonia* are now placed within the Fringillidae; and Hispaniolan Crossbill *Loxia megalaga* is split from *L. leucoptera* (White-winged Crossbill).

- Banks, R. C., Cicero, C. Dunn, J. L., Kratter, A. W., Rasmussen, P. C., Remsen, J. V., Rising, J. D. & Stotz, D. F. (2003) Forty-fourth supplement to the American Ornithologists' Union *Checklist of North American birds*. *Auk* 120: 923–931.

Barbados Bullfinch: a new Lesser Antillean endemic species

Lesser Antillean Bullfinch *Loxigilla noctis* has traditionally been viewed as a polytypic species with nine subspecies on various islands in the southern Caribbean, all of which bar one are strongly sexually dichromatic. The exception, *L. n. barbadensis*, has recently been studied by Paul & Francine Buckley, who conclude on the basis of a wide range of factors in addition to plumage that it has achieved species status, despite this bullfinch's relatively low mtDNA sequence divergence from other taxa within the complex, and that its ancestor was probably a comparatively recent arrival on Barbados.

- Buckley, P. A. & Buckley, F. G. (2004) Rapid speciation by a Lesser Antillean endemic, Barbados Bullfinch *Loxigilla barbadensis*. *Bull. Brit. Orn. Club* 124: 108–123.

More on extinct Greater Antillean birds

William Suárez continues his work on fossil Cuban birds. The fossil snipe *Capella* sp., previously known in the Greater Antilles from specimens recovered in the Bahamas and Caymans, has now been found in three Quaternary cave deposits in western and central Cuba, thus providing new information concerning the paleoecology and ancient distribution of this taxon in the West Indies.

- Suárez, W. (2003) The enigmatic snipe *Capella* sp. (Aves: Scolopacidae) in the fossil record of Cuba. *Carib. J. Sci.* 40: 155–157.

Tumaco Seedeater re-evaluated

Gary Stiles has recently published a paper, based on field observations in 1995 and extensive museum work, concluding that the globally threatened Tumaco Seedeater *Sporophila insulata* is, as often suspected, either a morph or race of Chestnut-throated Seedeater *S. telasco*, and thus that conservation attention is best directed to other priority species.

- Stiles, F. G. (2004) The Tumaco Seedeater (*Sporophila insulata*, Emberizidae): a species that never was? *Orn. Neotrop.* 15: 17–30.

Apolinar's Marsh Wren: two species or two subspecies?

The recent discovery of a population of Apolinar's Marsh Wren *Cistothorus apolinari*, a globally threatened species, in the Macizo de Sumapaz, Colombia, prompted Stiles & Caycedo to erect a new subspecies, *hermandezi*, for this population. Daniel Cadena has since published a follow-up paper discussing the

discovery in the light of different species concepts and questioning whether the new taxon should be considered a subspecies rather than a species.

- Cadena, C. D. (2003) Taxonomía de *Cistothorus apolinari* (Troglodytidae), conceptos de especie y conservación de las aves amenazadas de Colombia: un comentario. *Orn. Colombiana* 1: 71–75.
- Stiles, F. G. & Caycedo, P. (2002) A new subspecies of Apolinar's Wren (*Cistothorus apolinari*, Aves: Troglodytidae), an endangered Colombian endemic. *Caldasia* 24: 191–199.

A 'new' condor from Brazil

Recent work in Brazil has discovered a new fossil condor: *Wingegyps cartellei*, from Bahia and Minas Gerais, was smaller than any living member of the family, but is nonetheless considered to be a condor due to its skull morphology, which suggest that it was related to *Gymnogyps* and *Vultur*.

- Alvarenga, H. M. F. & Olson, S. L. (2004) A new genus of tiny condor from the Pleistocene of Brazil (Aves: Vulturidae). *Proc. Biol. Soc. Wash.* 117: 1–9.

The position of the Green Oropendola

Recent mtDNA data analysis has confirmed the findings of a previous study of vocal evolution in oropendolas, which suggested that the position of the Green Oropendola *Psarocolius viridis* is close to that of the genus *Gymnostinops*, underscoring the effectiveness of song characters for phylogenetic reconstruction.

- Price, J. J. & Lanyon, S. M. (2004) Song and molecular data identify congruent but novel affinities of the Green Oropendola (*Psarocolius viridis*). *Auk* 121: 224–229.

More on New World parrots

A fresh molecular analysis of some New World parrots has offered support for some recent findings and provided new theories. Thus, three Brazilian researchers found further evidence to place a number of species formerly within the genus *Ara* into the genera

Primolius, *Orthopsittaca* and *Diopsittaca*, and furthermore suggested that Red-shouldered Macaw *Diopsittaca nobilis* and Golden Parakeet *Guaruba guarouba* are closely related and that the genus *Aratinga* is not monophyletic. The authors of the paper go on to suggest that diversification of the genera may have occurred during the Miocene, and of species within genera during the Pliocene and Pleistocene; and that geologic, climatic and environmental changes in South America may have been important factors in these processes.

- Tavares, E. S., Yamashita, C. & Miyaki, C. Y. (2004) Phylogenetic relationships among some Neotropical parrot genera (Psittacidae) based on mitochondrial sequences. *Auk* 121: 230–242.

Taxonomy of the

Procellariiformes revisited

MtDNA cytochrome-b sequences (some of them already previously used by Nunn and Stanley in their 1998 work) have been used to re-examine the phylogeny of the Procellariiformes. The resultant paper suggests some striking new findings. The authors, who worked within the framework of the multi-dimensional Biological Species Concept, reject the many splits among albatrosses proposed by Robertson & Nunn (1998), and discovered an apparently surprising, strong relationship between the storm-petrels and albatrosses. The storm-petrels are considered to belong to two subfamilies, Hydrobatinae and Oceanitinae, whilst the genus *Oceanodroma* was found to be paraphyletic and the taxa therein thus regrouped into four genera: *Hydrobates*, of which *Oceanodroma* becomes a junior synonym, *Cymochorea*, *Halocyptena* and *Thalobata*. Furthermore, Penhallurick and Wink suggest that *Macronectes halli* should be merged into *M. giganteus* and that shearwaters formerly assigned to *Puffinus* should be clustered into two genera: *Puffinus* and *Ardenna*, with *P. creatopus* best regarded as a subspecies of *P. carneipes*. *Lugensa* is recognised as a distinct genus with its closest affinities to

Pachyptila, but the genetic data suggest that prions should be grouped into just two species: *P. turtur* and *P. vittata*. In addition, *Bulweria* groups with *Pseudobulweria* and *Procellaria* and the molecular data support the recognition of the subgenera *Pterodroma*, *Hallstroma* and probably *Cookilaria*.

- Penhallurick, J. & Wink, M. (2004) Analysis of the taxonomy and nomenclature of the Procellariiformes based on complete nucleotide sequences of cytochrome b gene. *Emu* 104: 125–147.

A new woodcreeper phylogeny...

Studies of higher-level systematic relationships among the woodcreepers have previously relied largely on morphological characters, but a new study proffers a molecular phylogeny of the major lineages of woodcreepers based on nucleotide sequence data from a nuclear non-coding gene region and the cytochrome-b gene. Strong agreement between the individual gene trees suggests that the resulting phylogeny is a reasonably true reflection of the true evolutionary history of woodcreepers, but these data conflict with the results of a parsimony analysis of morphological characters. Whilst morphological data place the genus *Drymornis* basally, molecular data suggest it to be derived among woodcreepers. Unlike most other woodcreepers, *Drymornis* is ground-adapted, as are the ovenbirds. The observed morphological similarities between *Drymornis* and the ovenbird outgroup may thus be explained by convergence or by reversal to an ancestral state.

- Irestedt, M., Fjeldså, J. & Ericson, P. G. P. (2004) Phylogenetic relationships of woodcreepers (Aves: Dendrocolaptinae)—incongruence between molecular and morphological data. *J. Avian Biol.* 35: 280–288.

...and for the Furnariidae

A robust phylogeny for the family Furnariidae was recently obtained using long sequences of nuclear and mitochondrial DNA. Contrary to previous expectations, these

data suggest a basal clade for *Scelerurus* and *Geositta*, and that *Xenops*, hitherto considered an aberrant ovenbird, should be transferred to the woodcreeper lineage. Morphological variation is also re-interpreted in view of the new phylogeny. The remarkable adaptive radiation in this family is presumed to have started as primitive, *Scelerurus*-like forms, which used the tail as a prop during terrestrial feeding, lured up to seek food on tree-trunks. The two basal woodcreeper genera *Xenops* and *Glyphorhynchus* exhibit strong cranial specialisations for hammering in wood, representing remarkable parallelism with the Picidae, *Xenops* resembling a piculet, *Glyphorhynchus* a tiny woodpecker. However, other woodcreepers show a more normal passerine skull, adapted for probing tree-trunk crevices and sallying for escaping insects. The ovenbirds developed a more flexible (rhyndokinetic) bill, well suited for retrieving prey hiding in suspended dead-leaf clusters and in epiphytes.

- Fjeldså, J., Irestedt, M. & Ericson, P. G. P. (2005) Molecular data reveal some major adaptational shifts in the early evolution of the most diverse avian family, the Furnariidae. *J. Orn.* 146: 1–13.

More than one species of Osprey?

Osprey *Pandion haliaetus* is generally considered to comprise five subspecies: *P. h. haliaetus* (in Europe, North Africa and Asia), *P. h. carolinensis* (North America), *P. h. ridgwayi* (Caribbean), *P. h. cristatus* (Australia south of 20°S) and *P. h. melvillensis* (northern Australia to Indonesia). Sequences of the cytochrome-*b* gene from American, European and Australian Ospreys revealed substantial genetic differentiation between them, leading to the possibility that all of the well-defined taxa might represent species.

- Wink, M., Sauer-Gürth, H. & Witt, H.-H. (2004) Phylogenetic differentiation in the Osprey (*Pandion haliaetus*). Published online at http://www.raptors-international.de/LAST_CONFERENCE/

Abstracts/>Taxonomy/hauptteil_taxonomy.html

A taxonomic headache solved?

An attempt has been made to reconstruct the phylogeny of the Yellow-crowned Parrot *Amazona ochrocephala* species complex using mtDNA sequence data from most named taxa. The study demonstrated that Middle American subspecies are reciprocally monophyletic, but that taxa in South America do not reflect patterns of genetic variation. Thus, samples from the lower Amazon clustered with samples taken in western Amazonia—not with those from Colombia and Venezuela, as might have been predicted by the subspecies classification. All subspecies within the complex were found to be more closely related to one another than to other *Amazona*, and the division of the complex into three species (Yellow-crowned Parrot *A. ochrocephala*, Yellow-naped Parrot *A. auropalliata* and Yellow-headed Parrot *A. oratrix*) was not supported by the current study's findings.

- Eberhard, J. R. & Bermingham, E. (2004) Phylogeny and biogeography of the *Amazona ochrocephala* (Aves: Psittacidae) complex. *Auk* 121: 318–332.

A cryptic new species of *Serpophaga*?

Serpophaga griseiceps was described from Cochabamba, Bolivia, but was subsequently subsumed within White-bellied Tyrannulet *S. munda*, the type series being generally considered to represent the juvenile plumage of *S. munda*. Thereafter, in 1993, Roberto Straneck presented new data from central Argentina to revalidate *S. griseiceps*. Now the validity of *S. griseiceps* has been re-examined by Sebastian Herzog and Juan Mazar Barnett, who uphold that the type specimens of *S. griseiceps* clearly resemble juvenile *S. munda*, but that both *griseiceps* and *munda* consistently differ in plumage coloration from Argentine specimens considered by Straneck to be referable to *S. griseiceps*. The type series of *griseiceps* coincides with *munda* in many mensural data, but both

have significantly longer wings and tails than Straneck's birds from Argentina. The authors field surveys in Cochabamba revealed only *munda*. Thus, they recommend that *griseiceps* be considered a junior synonym of *munda*, but that Straneck's birds appear to represent an undescribed cryptic species of *Serpophaga tyrannulet*.

- Herzog, S. K. & Mazar Barnett, J. (2004) On the validity and confused identity of *Serpophaga griseiceps* Berlioz 1959 (Tyrannidae). *Auk* 121: 415–421.

The position of the Socorro Mockingbird

Traditionally placed in its own genus, *Mimodes*, the Socorro Mockingbird *M. graysoni* is endemic to the remote island of the same name off western Mexico. Recently acquired molecular data have now been analysed and place the species within a strongly supported clade of four species from the genus *Mimus*, rather suggesting that *graysoni* too is more correctly placed in *Mimus*.

- Barber, B. R., Martínez-Gómez, J. E. & Peterson, A. T. (2004) Systematic position of the Socorro mockingbird *Mimodes graysoni*. *J. Avian Biol.* 35: 195–198.

Testing the importance of rivers as barriers to avian genetic interchange in Amazonia

Populations of ten Amazonian bird species were sampled on opposite banks of the rio Teles Pires, a headwater of the rio Tapajós, in the Alta Floresta region of northern Mato Grosso, Brazil, at a point where the river is 100–300 m wide. A range of genetic differentiation from none to relatively high levels was found, and six of the ten species exhibited what appeared to be genetic breaks at the river. With one exception, *Hylophylax poecilinota*, there was no morphologically recognised differentiation correlating to the genetic differentiation. Thus, from the perspective of traditional morphology-based taxonomy, the rio Teles Pires is not a faunal barrier and contact zones between members of species and subspecies pairs appear more or less randomly distributed in this

region, some being located at varying distances to the east, others at varying distances to the west of the Teles Pires, with rather few following the course of the river itself.

- Bates, J. M., Haffer, J. & Grismer, E. (2004) Avian mitochondrial DNA sequence divergence across a headwater stream of the Rio Tapajós, a major Amazonian river. *J. Orn.* 145: 199–205.

Five phylogenetic species of Common Bush-tanagers in Mexico?

Cloud forests are highly fragmented in Mesoamerica, and populations of taxa restricted to such habitat are thus frequently highly isolated and often show high morphological and genetic divergence. Recent mtDNA work on the Mexican populations of Common Bush-tanager *Chlorospingus ophthalmicus* suggests the existence of five major clades, which are segregated geographically, have long been isolated and may each have achieved species status: in southern Chiapas and northern Central America; the Tuxtlas massif; the Sierra Madre del Sur; eastern Oaxaca and northern Chiapas; and the Sierra Madre Oriental.

- García-Moreno, J., Navarro-Sigüenza, A. G., Peterson, A. T. & Sanchez-González, L. A. (2004) Genetic variation coincides with geographic structure in the common bush-tanager (*Chlorospingus ophthalmicus*) complex from Mexico. *Mol. Phyl. & Evol.* 33: 186–196.

A phylogeny for the curassows

Fourteen species of curassows are currently recognised within four genera, but a molecular phylogeny, and thus a test of assumed relationships and taxonomy, was previously unavailable for this interesting group. A total of six

gene regions were therefore sampled and the resultant combined tree divided into two well-supported clades: one containing the seven species of *Crax* and the other the monospecific genus *Nothocrax*, as sister to a clade of the *Mitu* and *Pauxi* species. *Mitu* and *Pauxi* are not reciprocally monophyletic, which appears to be attributable to a distant hybridization event and a transfer of *Mitu* mtDNA into *P. unicornis*. Vicariance—following marine transgressions, the rise of the Andes, and subsequent changes in river basins in South America—seems to be the major mode of isolation that favoured allopatric speciation in the group.

- Pereira, S. L. & Baker, A. J. (2004) Vicariant speciation of curassows (Aves, Cracidae): a hypothesis based on mitochondrial DNA phylogeny. *Auk* 121: 682–694.

Molecular relationships among the cinclodes

Phylogenetic relationships within the genus *Cinclodes* have been tested using sequences of two mtDNA genes. The group proved to be monophyletic but to consist of three major lineages: (1) the south-east Brazilian isolate, Long-tailed Cinclodes *C. pabsti*, which was sister to the rest of the genus; (2) a clade of five primarily Patagonian or central Argentine highland species; and (3) a clade of seven primarily north-central Andean or Pacific species. Biogeographic structure in the Patagonian-Andean taxa was consistent with the deep Patagonian and north-central Andean division previously noted in the similarly distributed genus *Muscisaxicola*, whilst evolutionary relationships among *Cinclodes* species proved to be partially consistent with expectations based on plumage, behaviour, and ecology.

- Chesser, R. T. (2004) Systematics, evolution, and biogeography of

the South American ovenbird genus *Cinclodes*. *Auk* 121: 752–766.

Solitary Tinamou is monotypic

A recent paper has determined that Solitary Tinamou is best considered monotypic as the subspecies *pernambucensis*, previously considered diagnosable on the basis of morphometry and plumage characters, has now deemed to be a synonym of the nominate form.

- Amaral, F. S. R. do & Silveira, L. F. (2004) *Tinamus solitarius pernambucensis* Berla, 1946 é sinônimo de *Tinamus solitarius* (Viellot, 1819). *Ararajuba* 12: 33–41.

Another new species of *Thamnophilus* antshrike

Bret Whitney and colleagues have recently described the Acre Antshrike *Thamnophilus divisorius* from the Serra do Divisor, in Acre, western Brazil. The species is sister to the Pantepui Streak-backed Antshrike *T. insignis* and lies within the same clade as Amazonian Antshrike *T. amazonicus*. At present the new antshrike is apparently restricted to a remote and rather small ridgeline, in shrubby woodlands on poor soil, where it is common, although it seems likely that it will be discovered in other similar highland areas within the region, and perhaps even within neighbouring Peru.

- Whitney, B. M., Oren, D. C. & Brumfield, R. T. (2004) A new species of *Thamnophilus* antshrike (Aves: Thamnophilidae) from the Serra do Divisor, Acre, Brazil. *Auk* 121: 1031–1039.