

**Report of the Workshop “Barcodes of Neotropical Birds” held at the
VIII Neotropical Ornithological Congress, Maturin, Venezuela, 13-19 May, 2007**

Participants (total: 37, list below): Argentina (3), Australia (1), Bolivia (2), Brazil (7), Canada (1), Chile (2), Colombia (3), Costa Rica (1), Guatemala (1), Mexico (5), Panama (1), USA (9), Venezuela (2)

The workshop started with an introductory presentation by Cristina Y. Miyaki. This presentation provided the aims, applications and potential benefits from the All Birds Barcode Initiative (ABBI). This information was obtained from the ABBI’s website (<http://www.barcodingbirds.org/>). Then a brief report was given about the 1st ABBI workshop held at Harvard University in 2005 and the composition of the ABBI’s leadership team and the names of the chairs of the Neotropical region were presented. We also presented a brief report on the ABBI Neotropical Working Group meeting held at the Museo de Ciencias Naturales de Buenos Aires in March, 2007. The current status of the Neotropical effort was provided in the context of ABBI (total number of avian barcodes, number of barcodes of Neotropical birds and progress per Neotropical avian order).

Next reports were presented on the ongoing Neotropical ABBI projects (Birds of Argentina, Birds of the Caribbean, *Thamnophilidae* and *Tyraniidae* of the Brazilian Cerrado and Neotropical *Psittacidae*). The experience of the Argentineans was highlighted as a very successful collaboration. Barcode-like based identification of parrot embryos was presented as an important demonstration of a barcode application. Finally, we introduced all participants to the webpages of ABBI, Barcode of Life Data Systems (BOLD, www.barcodinglife.org), Consortium for the Barcodes of Life (CBOL, www.barcoding.si.edu) and the DNA Barcode Blog (phe.rockefeller.edu/barcode/blog) were presented.

Matthew Miller, representing Biff Bermingham, presented many examples demonstrating that the comparative analysis of a mitochondrial gene from various species revealed interesting biogeographical patterns in Mesoamerica. He also emphasized that the same pattern should be observed with the analysis of barcodes, and that the COI barcode could give researchers a common language (mtDNA fragment), more easily allowing comparative studies. Thus, COI added to ongoing molecular systematic studies is both useful and informative.

Then a very productive discussion started and the main **recommendations** or **comments** resulting from the Neotropical ABBI workshop are listed below.

- One group of participants was curious/enthusiastic about barcoding, but lacked finances for field trips, specimen curation and infrastructure maintenance. This group included some collection curators. If new collections are generated for the purposes of barcoding, some asked what mechanism would exist to support the basic maintenance of the collections once the ABBI initiative has ended? This group could be characterized as willing to join the initiative but hungry for resources and reassurance.
- A second group consisted of other US- and Neotropical-based museum affiliates who feel that they were overlooked in the barcoding design. They stated that they should have been approached by the barcoders to plan the initiative. They want greater control over how barcoding will impact their on-going research into phylogeny and phylogeography, and expect that discussions with collection curators will occur on an individual basis (each collection has particular expectations). Several curators mentioned that a big obstacle to barcoding is the COI fragment since most molecular ornithologists have 5-10 years worth of data from another mtDNA fragment (*cyt-b*, *ND2*, *ATPase*). One possible way to leverage support from this community would be to include a second gene in the high-throughput survey at the same time that COI was collected (For example John Klicka Barrick Museum and Robb Brumfield, LSUMZ, curators at two of the largest collections of Neotropical material, expressed willingness to contribute material if they could get another gene out of it). However, others in this community remain quite antagonistic towards barcoding.

- One persistent question was whether the Argentine model could, or even should, be replicated throughout the Neotropical region. It was clear that the Argentinians are quite happy with the logistical and technological support that they have received. However, several people questioned if the Argentine example could be a one-time gesture to develop support in the Neotropical region for barcoding, and that remaining countries would only receive unfulfilled promises. Despite their differences, most Neotropical-based ornithologists want to be actively involved in the barcoding of this region's birds rather than simply passively providing samples to be sequenced abroad.
- Finally, there should be a campaign to the general public who believe that specimen collectors are "murderers", and that the public's enthusiasm for barcoding could be leveraged towards this goal.

Participants

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