

—Gleanings—

Antonov, A., Stokke, B. G., Moksnes, A. & Røskoft, E. 2006.
Egg rejection in Marsh Warblers (*Acrocephalus palustris*)
heavily parasitized by Common Cuckoos (*Cuculus canorus*).
The Auk 123 (2): 419–430.

Just as there has been a co-evolutionary struggle for survival between plants and their arthropod predators, there has been a similar such “arms race” between parasitic cuckoos and their hosts. Over the millennia, they have evolved several adaptations and counter-adaptations to thwart each other. In this study, the authors found that more than a quarter (28%) of warbler nests were parasitized by the cuckoos, and that the cuckoos succeeded in this apparently because of clever egg mimicry, i.e., resemblance between the eggs of the parasite and the victim. The authors also supplemented their fieldwork with experimental data. They used four types of experimental “cuckoo eggs” with varying degrees of mimicry and discovered that the warblers rejected an astounding 37.5%–100% of alien, albeit, experimental eggs. Even in nature, the hosts rejected half of real cuckoo eggs. With high rates of parasitism and rejection, this fascinating and little-known host-parasite race has apparently reached an advanced stage. But perhaps the most intriguing finding in the study is that the warbler’s ability to reject eggs was dependent on the extent of egg mimicry (i.e., cuckoo eggs that looked less like host eggs were thrown out at a higher rate than those that looked similar) but *not* on size differences. It is well known that the cuckoo, being larger than the warbler, lays bigger eggs. Apparently the victims do not perceive this size difference and they faithfully proceed to incubate them just as they would their own, much smaller eggs. Anyone browsing an ornithology textbook is bound to have been struck by photos of warblers feeding cuckoo fledglings much bigger than themselves. Obviously, the warbler’s inability to perceive glaring size differences applies to eggs as well.

—R. Kannan

Outlaw, R. K., Voelker, G. & Outlaw, D. C. 2007. Molecular systematics and historical biogeography of the Rock-Thrushes (Muscicapidae: *Monticola*).
The Auk 124 (2): 561–577.

As ornithology enters the 21st century, ornithologists have to increasingly resort to interdisciplinary techniques to solve complex questions. This paper is one example of such a study. The authors use a clever mixture of morphological, zoogeographical, and molecular evidence to reconstruct evolutionary and taxonomic relationships within the genus *Monticola*, which has had a turbulent taxonomic history. Systematists have long argued over where the genus should be placed. With 13 currently recognized species across Eurasia and Sub-saharan Africa

(five in South Asia), the genus offers an excellent model to examine speciation and historical changes in geographical distributions as a result of continental drifts. Most species live in arid climes and show disjunct geographical ranges, and even those with similar distributions are segregated altitudinally.

Much of their findings centre on the re-drawing of African taxonomic lines and hence would be of little direct relevance to Indian birders. However, their conclusions regarding the origins and current distributions of species within this genus could be of interest to general ornithological readers. For example, they deduced that the genus arose around 5.5 million years ago (mya), and the lineage split further into the pliocene (5 mya) and pleistocene (1.8 mya) epochs. They propose that a combination of ecological and climatic variations, as well as dispersal, accounts for the current distributions and relationships within the species.

—R. Kannan

James, D. A. & Kannan, R. 2007. Wild Great Hornbills (*Buceros bicornis*) do not use mud to seal nest cavities.
The Wilson Journal of Ornithology 119 (1): 118–121.

The title of this paper explicitly states its contents and their conclusion. Its perusal shows the importance of intelligent literature review and how that can be related to the type of field information collected to fill gaps in our recorded knowledge of bird behaviour. Observations over a century have been ambiguous about the method used by the Great Pied Hornbill *Buceros bicornis* to seal its nesting cavity. Did the birds use mud or excreta or food? The authors found no evidence of mud delivery or usage in 183hrs of observation at a nest in the Anaimalai Hills of the Western Ghats. They record, “The female was observed to only use her feces as plaster material. After exit of the female, the chick was observed to use exclusively its feces for resealing the entrance. The male did not participate in nest sealing” (p. 119). In fact they collected broken chunks of plaster that had fallen to the ground and had them analysed for chemical element composition. The verdict: fecal matter.

Ishtiaq, F., Gering, E., Rappole, J. H., Rahmani, A. R., Jhala, Y. V., Dove, C. J., Milensky, C., Olson, S. L., Peirce, M. A. & Fleischer, R. C. 2007. Prevalence and diversity of avian haematozoan parasites in Asia: a regional survey.
Journal of Wildlife Diseases 43 (3): 382–398.

Asia witnesses the trans-continental migration of tens of millions of birds every year, potentially transmitting blood-borne Hematozoan parasites to other birds across far-flung localities. The continent has also been the origin of many birds that have been introduced worldwide by humans. Hawaii has borne the brunt of this influx of exotics.

Over 125 species of birds in the islands are from elsewhere, mostly originating in India and South-east Asia. These species are believed to have introduced Avian malaria and other blood-borne parasitic diseases into native bird populations, contributing to the demise of many indigenous bird species. In my monograph on the Common Myna *Acridotheres tristis*, I mentioned reports of the occurrence of two Avian malarial parasites, *Plasmodium relictum* and *P. circumflexum* in the blood of mynas from Hawaiian Islands (Kannan, R. & D. A. James, 2001. The Common Myna. In Birds of North America, Philadelphia Academy of Sciences and American Ornithologists Union, No. 583, pp. 20). Despite this reported occurrence of parasites in the blood of Asian birds, and given the history of worldwide transmission of these parasites, it is surprising that until this study, there had been no systematic survey of Hematozoans from this continent. This paper presents

findings from an analysis of blood samples from 699 birds from Myanmar, India, and South Korea, collected over a 10-year period from 1994. Thirty-four per cent (238 birds) of the sample was found to be infected with Hematozoans. Using molecular techniques involving cytochrome-b gene sequences, the authors report 34 distinct lineages of *Plasmodium* and 41 of *Haemoproteus* in the sample. Myanmar and India shared lineages, and there was no such overlap in lineages between India and South Korea. The authors speculate that the lack of sharing of lineages between India and South Korea may be because migratory birds that ply between the two countries adopt different flyways. Conversely, Myanmar and India, being geographically adjacent to each other, may share migratory populations of many species and hence the congruence in Hematozoan lineages.

—Ragupathy Kannan

—In the news—

Compiled by Praveen J.

Its BirdRace time again!

The HSBC India BirdRaces are slowly expanding and gaining popularity. About eight Indian cities will conduct bird races starting from 11.xi.2007 in Kerala (three cities) with the grand finale at Bharatpur (Rajasthan) in February. Partly inspired by the Hong Kong Bird Race, the event is open to all, from experienced birdwatchers, lay-persons, beginners, students, well, just about anyone interested in birds and willing to give up a Sunday for birds and fun. This is a teamwork exercise with three to four persons comprising a team, which must include a good birder who is familiar with the site's / region's avifauna. Every team will remain as a composite unit for the entire day. There are no pre-determined routes or birding spots. The BirdRace begins at dawn and ends just before sunset. Thereupon, wherever the teams are, they take about an hour to converge at a venue for the prize distribution ceremony and dinner. Check out <http://www.indiabirdraces.com> for the recent updates and watch-out for announcements in regional e-groups.

New state bird for Himachal Pradesh

Himachal Pradesh has declared the exquisite and elusive Western Tragopan *Tragopan melanocephalus* or *Jujurana* as its locally known, as its new state bird. The Western Tragopan is a Near-Threatened species endemic to the Western Himalayas. Himachal's former state bird, Himalayan Monal *Lophophorus impejanus* was also the national bird of Nepal and hence was not considered unique for the state. Snow Leopard *Panthera uncia* would be the new state animal replacing Musk Deer *Moschus chrysogaster* and Pink Rhododendron *Rhododendron campanulatum* the state flower replacing the commoner *Rhododendron arboretum*. Decisions to designate these were taken in the 3rd State Wildlife Board Meeting at Shimla under the chairmanship of Chief Minister Virbhadr Singh on 10.viii.2007. According to a press release, the CM said the decision to grant exalted status to these rare species would go a long way in protecting them and also give a boost to their conservation efforts. Courtesy: <http://himachalpr.gov.in>.

Heronries in Kerala—hanging by a thin thread

Heronries in Kerala have not done well in recent years. The thickly populated state also happens to be a major breeding area for Oriental Darters *Anhinga melanogaster* and other mixed heronry species; and several of these heronries happen to be in public places close to human activity like hospitals, temples, bus stations and roadside trees. A smattering of news reports appear in press and e-groups annually, of heronry trees being cut, nestlings and hatching birds being caught and birds being shot. The heronries are extremely unpopular among the locals and there is much hue and cry to destroy the trees or nests to cleanse the area. The stench and noise that emanates from a mixed heronry is something which even the most ardent of bird-watchers would loath!

Local press reported the destruction of a heronry with nests of Little Cormorants *Phalacrocorax niger* from the premises of Lord Krishna temple at Guruvayur. Darter nestlings that tumble down from the trees around Kottayam bus station fall prey to stray dogs and are run-over by buses. A poacher was reportedly caught selling darter chicks by Forest Department officials at Thrissur.

It is generally felt that legislation cannot do much to protect mixed heronries in Kerala. However, awareness campaigns are slow and gradual and sometimes not very effective. Individual initiatives have been fairly successful in protecting a mixed heronry at Irinjalakuda where more than 60 pairs of darters nest. A sub-adult darter, which was being sold in a market at Kottayam, was bought by bird-watchers for Rs 30/- (!) and re-habilitated at Kumarokom. This bird has become quite popular with local children who bring fish to feed the bird. A heartening note was the report by B. Sreekumar and others from Vembanad Nature Club of 500 darters breeding at Kumarakom heronry in ix.2007; perhaps one of the very few sites away from direct human conflict.

Problems at each heronry are different and there is no single "magic" solution. Subsequent to regular heronry counts by Malabar Nature History Society (MNHS) in recent years, it is felt that greater effort should now be directed towards developing