Changes to the printed Program since 24 July 2013 (current to 06 August)  
(changes after 7 August in blue text)

Error on p 31 of Program booklet: identification of session chairs lacking for Saturday afternoon sessions beginning at 13:30.

Symposium 10. Collection-based research, convener M. Webster (continuing from morning)
Session 11A. Breeding Biology, Jennifer S. Malpass, chair
Session 11B. Conservation, David C. Pavlacky, Jr., chair
Session 11C. Ecology, Jeffrey F. Kelly, chair

Symposium presentation s6.10 (Robin et al.) cancelled; replaced by Paper 143 (Hosner et al)

Sequence of papers in Session 2B becomes
Paper 40 (formerly 42) Swanson et al.
Paper 41 (formerly 40) Stager et al.
Paper 42 (formerly 41) Fairhurst et al.

Paper 59 (Peele) cancelled; replace with Paper 60 (Kendrick et al)

Paper 60 (Kendrick et al) moved to Paper 59 time slot; time slot of Paper 60 becomes vacant

Paper 84 (Lim and Sheldon) cancelled; replaced by Paper 90 (Wang et al.) of same session

Paper 90 (Wang et al.) moved to Paper 84; resultant vacancy replaced by following new paper

90 Wood, Pidgeon, Radeloff, Culbert, Keuler, Flather

Biodiversity conservation is a primary goal of protected areas. However, both private inholdings and adjacent lands are attractive for housing development. In the US, housing growth on inholdings and along the boundaries of protected areas has boomed since the 1970s. Our goal here was to examine the effect of housing development, within and outside of protected areas, over the past 40 yr on avian communities of adjacent protected areas. Focusing on 4 ecoregions across the US, we explored associations between the proportional abundance of species of greatest conservation need (SGCN), land cover affiliates, and synanthropes within protected areas, versus housing density within- and outside-protected areas from 1970 to 2010. In 3 ecoregions, the proportional abundance of SGCN and land cover affiliates showed a strong negative association with housing density within protected areas, whereas synanthropes showed a strong positive association with housing density within protected areas. In eastern forests, the most densely developed region in our study, the proportional abundance of SGCN and land cover affiliates steadily declined with increasing housing density, whereas native synanthropes and exotic species steadily increased. In the less densely populated West, we found similar trends in desert shrublands, as well as interior and Pacific valleys and mountains, though the effect was not as great for the latter regions. Housing density outside protected area boundaries was also negatively associated with either the proportional abundance of SGCN or land cover affiliates, and positively associated with synanthropes in eastern forests and desert shrublands. Our results raise concern that as housing development continues in and near protected areas the conservation benefit of these lands will likely diminish.

Paper 108 (Bravo et al) cancelled; replaced with Poster 397 (Nocedal)

Paper 133 (Stirmemann et al) cancelled; replaced with Paper 134 (Rigby & Johnson)

Paper 134 (Rigby & Johnson) moved to Paper 133 time slot; replaced with Poster 398 (Novak et al)
Incidental take on nesting birds in a red pine plantation in southern Ontario. IAN FIFE, Dept. Biol., Trent Univ., Peterborough, ON. Incidental take is mandated under section 12(h) of the Migratory Birds Convention Act (MBCA) in Canada. Forestry operations put migratory bird nests and eggs at risk and it is Ontario’s policy to ensure that no species declines from forestry operations. To understand the impacts of harvesting the objective of my study was to locate bird nests within the study area prior to, during, and after harvest to measure the level of take occurring under single-tree selection harvesting. The goals are to measure nest success rate of 5 focal species and measure the proportion of nests that are incidentally taken from forestry operations. We found higher than average desertion rates of migratory birds (58 nests deserted of 243) within the study area. Desertion rates were affected by the study plots ($X^2 = 8.208, df = 3, P = 0.04$) and observed nest desertion rate was highest in the study area that had previously been harvested before the summer of 2012 ($X^2 = 2.278$). Neither American Robin, Red-eyed Vireo, Eastern Wood-pewee, or Rose-breasted Grosbeak (all $P's > 0.05$) show significant treatment effects on daily survival rates, however for Ovenbirds we do not have sufficient sample size. As of yet this study is the first to determine the number of nests lost due to direct forestry activity making a very significant contribution for management policies and for determining specific contraventions of the MBCA. The results of my study will help forest managers to apply proper management strategies to decrease or eliminate take of nesting birds providing guidance about timing of harvest and the temporal extent of the residual effects.

A morphometric study of the White-starred Robin (Pogonochila stellata). MICHAEL HANSON, JOHN M. BATES, Field Mus., Chicago, IL, and SUSHMA REDDY, Loyola Univ. Chicago, Chicago, IL. The White-starred Robin, Pogonochila stellata, is a widespread songbird found in fragmented montane forests across sub-Saharan Africa. We conducted a study to test whether any substantial morphological differences exist between populations of this species, focusing on specimens collected in the Albertine Rift (subspecies ruwenzorii) and Eastern Arc Mountains (subspecies orientalis). These subspecies were chosen as the focus of this study due to the large numbers of specimens for each subspecies held in the Field Museum collections (150 orientalis specimens, 95 ruwenzorii specimens, and 67 specimens from 6 of 8 other subspecies). It should be noted that fewer females (105 individuals) than males (163 individuals) were present in the collection. The subspecies that were the focus of the study have wide ranges but live in small, highly localized habitats. We took standard morphological measurements and employed principal components and linear discriminant analyses to examine variation across subspecies and sexes. The principle components study points against strong morphometric differences between populations of the ruwenzorii and orientalis subspecies despite preliminary genetic analyses showing differentiation among populations. On the other hand, these analyses suggested the presence of size-based sexual dimorphism in orientalis and ruwenzorii, which was also supported by linear discriminant analysis. Other subspecies show some discrete groupings but this needs to be further tested with additional sampling.

Song divergence, plumage divergence and assortative mating in bird hybrid zones. EMILY J. HUDSON,
It has been demonstrated that in birds, traits like plumage color and song are important for mate choice. Indeed, it has been argued that pre-mating isolation resulting from divergence in these traits is the critical step to speciation in birds. This study tests the assumption that trait divergence in allopatry correlates with reproductive isolation by examining an important stage in speciation: when allopatric populations move back towards sympatry via a hybrid zone. We measured the degree to which divergence in signals (plumage color and song) predicts reproductive isolation (assortative mating) in a variety of well-studied hybrid zones. Sixteen pairs of hybridizing species or subspecies were chosen for this analysis, based on the availability of reliable assessments of assortative mating in the literature. We use color (measured by spectroscopy) in 12 standard plumage patches, and several easily quantified song characteristics, as indicators of divergence in traits that are likely to be relevant in species recognition. Although our dataset is limited, our preliminary results indicate that there is little correlation between degree of divergence in song and plumage, and presence or absence of assortative mating in the hybridizing species pairs studied. While species clearly do use visual and auditory signals as a cue in species recognition, our results suggest that trait divergence alone is not an adequate method for inferring species status in allopatry, nor is pre-mating isolation a necessary prerequisite for the formation of reproductively isolated populations. Rather, we argue that the presence of post-mating isolation is at least an equally critical factor in speciation, since the resulting reinforcement is what narrows and strengthens mate choice preferences. Assessing fitness of hybrids is a difficult but important next step to understanding and quantifying the role of reinforcement.

Poster 397 (Nocedal) moved to Paper 108; Poster 397 slot becomes vacant

Poster 398 (Novak et al) moved to Paper 134; Poster 398 slot becomes vacant

Poster 405 added:

405 Miller, Buitrago

Two species are recognized in the Variable Mountain-Gem group (Lampornis castaneoventris and L. calolaemus) of hummingbirds based on whether males have white or violet gorgets. This single character has been used to establish species limits in the group, despite the disjunct geography of violet-throated forms as well as racial variation in both white-throated (castaneoventris and cinereicauda spp.) and violet-throated forms (calolaemus, pectoralis, and homogenes spp.). However, the discovery of a phenotypically-distinctive new taxon in the species group from Cerro Hoya in the Azuero Peninsula of Panama further raises the possibility the current taxonomy of Variable Mountain-Gems does not reflect biological reality. An initial analysis of mitochondrial DNA variation across the range of Variable Mountain-Gems found that the 2 isolated and peripheral of violet-throated populations (pectoralis and taxon nova) formed unique, well-differentiated, clades while the remaining contiguous violet- and white-throated taxa showed no phylogeographic structure and frequently shared a few widespread haplotypes. This pattern was confirmed from the sequence data from several nuclear introns. Likewise, these 2 isolated populations showed differentiation in common mensural characters while the remaining forms did not. However, a detailed review of male specimens across the contact zones of calalaemus (violet-throated) and cinereicauda (white-throated) in Costa Rica and castanoventris (white-throated) and homogenes (violet-throated) indicates in both cases that throat-color groups are well-delimited geographically and have well-sampled, and well-identified contact zones, yet almost no geographic overlap of throat-color forms and little apparent hybridization, suggesting active assortative mating. This evidence argues for the recognition of at least 5 species in the group, instead of lumping all 6 taxa into a single species which is the only other reasonable alternative given our data.

Poster 426 (Stumpf et al) has been cancelled; Poster 426 slot becomes vacant