populations in the NE United States have significantly lower adult survival than *M. m. morphea* populations in the NW US (Michel et al. 2005). During spring 2006, birds from these populations received either testosterone or empty implants and, 7–14 days later, injections of lipopolysaccharide (LPS) to activate the innate immune system. A blood sample was then taken to assay acute-phase protein production as a marker of immune response strength. We also took blood from unmanipulated birds to quantify constitutive immune defenses. All birds were sampled at comparable stages of the breeding cycle. Experimental implants significantly increased circulating levels of T (p=0.001, Mann-Whitney U-test). Constitutive immune defenses tended toward stronger complement-mediated lysis in the higher-survival Washington population (p=0.03, Mann-Whitney U-test). We are currently determining whether populations differ in acute-phase protein response to LPS between T- and control-treatments.

Adriaensen F, Githiru M, Matthysen E, Lens L

Modelling forest connectivity for critically-endangered bird species: A case study in the Taita Hills, Kenya

The montane forests of the Taita Hills in southeast Kenya have lost over 95% of their indigenous cover in the last 200 years, mainly due to clearing for agriculture. Despite the small size of the twelve remaining indigenous forest fragments (1–179 ha, 9 of which are smaller than 10 ha), they are of global conservation importance because they retain several endemic and threatened plants and animals, including the critically endangered Taita Thrush (*Turdus helleri*). To maintain the ecological integrity of these remnant forest fragments and to ensure the long-term viability of their endemic populations, there is an urgent need to increase the area of indigenous forest in order to restore connectivity among the fragments through carefully-planned forest restoration. We will present the results of a connectivity analysis for the Taita Hills landscape based on least-cost path analysis, and supported by dispersal data estimated from nine years of capture-mark-recapture effort. The least-cost analysis provides quantitative estimates of the isolation of forest fragments, based on the relative resistance or friction of the matrix between patches and enables the identification of existing or potential corridors for dispersal between patches. Because it can be used to assess the conservation value of specific corridors or stepping-stones, it is an important conservation tool for pinpointing priorities for forest restoration throughout the landscape. The project is funded by the Critical Ecosystem Partnership Fund and the results will be implemented directly in local forest restoration plans.

Ajagbe AA

Habitat use by the Adamawa Turtle Dove in Amurum Forest Reserve and surrounding farmlands in northern Nigeria

The Adamawa Turtle Dove (*Streptopelia hypopyrrha*) is endemic to northern Nigeria and adjacent Cameroun, where it is found in wooded ravines and cultivated areas. The daily routines of the dove were monitored in the Amurum Forest Reserve, Jos, in central north Nigeria, and surrounding farmlands between February and April 2004. A total of 413 birds were recorded at two study sites using line transects, 185 in the reserve and 228 in surrounding farmlands. In the forest, activity peaked before 0700 hours, particularly around gallery forests. Birds perched and flew about but did not forage at the time. After 0720 hours, abundance and movement shifted to the farmlands, where most birds foraged. Unique assemblages also gathered on freshly burnt farmland. The pattern of movements indicated that the doves use farmlands by day for foraging and the Amurum Forest Reserve by night to roost communally; they also nest in the forest. The presence of islands of forest in cultivated farmland is of obvious benefit to the dove, and maintenance of such mosaics should be explored as a strategy for conserving this and other granivorous birds.

Albayrak T, Erdogan A, Bairlein F

The density and habitat of Krueper's Nuthatch in Mediterranean Turkey

The global distribution of Krueper's Nuthatch (*Sitta krueperi*) is centered in Anatolia, with outliers breeding on Lesvos and the Caucasus. Krueper's Nuthatch occurs mainly in coniferous forests of Red Pine (*Pinus brutia*), Black Pine (*Pinus nigra*), cedar (*Cedrus libani*), fir (*Abies cilicica*) and juniper (*Juniperus sp.*). We investigated the distribution and density of Krueper's Nuthatch in various regions of Mediterranean Turkey. Density at pairs/ha was derived from standardized line transect observation, with highest numbers in fir stands (mean 0.142±0.02 s.e., n=4 study plots at mean altitude of 1464 m asl), followed by juniper (0.128±0.06, n=4 at 1086 m asl), Black Pine (0.122±0.01, n=6 at 1532 m asl), cedar (0.075±0.01, n=4 at 1476 m asl) and Red Pine (0.075±0.01, n=35 at 654±66 m asl). Within Red Pine, density was related positively to altitude, between a range of 50 - 1499 m asl.

Aleixo A, Burlamaqui T, Gonçalves E, Schneider P

Molecular systematics of the Ocellated Woodcreeper complex (Dendrocolaptidae) in tropical South America: Implications for taxonomy, conservation, and historical biogeography

The Ocellated Woodcreeper (*Xiphorhynchus paradoxus* - *X. ocellatus*) complex includes three currently recognized polytypic