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populations evolving under high-UVR conditions have been limited. In order to address this, we report on *MC1R* coding variation in 188 individuals from Northern Island Melanesia. Diversity levels are reduced in this sample ($\pi = 0.0075$, $\theta = 0.00081$) relative to non-African populations sequenced as part of the 1000 Genomes Project (π range = 0.00056-0.00171; θ range = 0.00089-0.00323). We observe five polymorphisms, three of which are non-synonymous. Using a modified McDonald-Kreitman's test, we demonstrate that this pattern is inconsistent with a model of strong purifying selection ($p = 0.275$). Further, we do not observe extensive haplotype sharing between Melanesians and African populations from the 1000 Genomes Project, as one might expect if variation at this locus has been constrained across high UVR populations. One nonsynonymous polymorphism, rs2228479, is common in the sequenced sample (15%) but is not significantly associated with quantitatively assessed variation in skin or hair color in a larger sample of genotyped individuals, possibly due to epistatic interactions with other pigmentation loci. These results suggest that a reinterpretation of the strength of selection on *MC1R* in high UVR populations may be necessary.

Dietary trends in early medieval Croatia as evidenced by stable isotope analysis

MARIO NOVAK^{1,2}, RACHEL HOWCROFT², RON PINHASI² and MARIO SLAUS³.

¹Department for Scientific Research, Institute for Anthropological Research, ²School of Archaeology, University College Dublin, ³Anthropological Centre, Croatian Academy of Sciences and Arts.

Little is known about the diet of early medieval Croatian populations. Written sources talking about this topic are scarce, so most of the data are available from paleodentological studies or, in rare cases, from stable isotope analyses. The main aim of this study is to reconstruct the dietary patterns of the early medieval Croats based on nitrogen and carbon stable isotopes analysis, but also to examine if there are significant differences between the sites and between the sexes.

The series includes 30 human and one animal (sheep/goat) bone sample from five EM (6th-12th c. CE) sites located on the eastern Adriatic coast. The majority of individuals had $\delta^{13}\text{C}$ values between -19.7‰ and -17.6‰ and $\delta^{15}\text{N}$ values between 8.6‰ and 10.5‰, which is consistent with a diet based primarily on terrestrial C_3 resources with little or no marine or C_4 input. Higher $\delta^{15}\text{N}$ values in two adult individuals suggest the consumption of large amounts of high-trophic level protein, or of freshwater fish. Two other individuals, an adolescent and a 1.5-2.5 year old child, had high $\delta^{13}\text{C}$ values, indicating the consumption of either marine foods or a C_4 resource such as millet. The young child also had an elevated $\delta^{15}\text{N}$ value, so was probably consuming a C_4 or marine-based

weaning food whilst still breastfeeding. No differences were apparent between sites or between males and females in the analysed sample. These results provide us with new information on diet and lifestyle of individuals inhabiting eastern Adriatic during the Early Middle Ages.

Male migration, family structure and children's health in a seasonal agricultural community in Veracruz, Mexico

ALEJANDRA NUNEZ-DE LA MORA. Instituto de Investigaciones Psicológicas, Universidad Veracruzana.

Family structure is widely known to be associated with children's health and wellbeing. Controlling for a range of background factors, children experiencing family stability are most likely to have healthy outcomes on most measures. The aim of this study was to determine the effect of prolonged father absence due to economic migration on the nutritional status and health of his children. Research was conducted in Ocoatepec, a small mestizo subsistence agricultural community with very low human development indices and high marginalization in Veracruz, Mexico. Families in Ocoatepec rely, to a large extent on maize milpas for its year-long staple food supply, and on relatively small government cash transfers and variable remittances to pay for agricultural inputs and other purchased goods. Although women and children typically participate in agricultural activities, crop-management decisions and strenuous heavy workloads are men's traditional responsibility. However, in nearly half the households, young men out-migrate in search of paid employment and are gone for most of the agricultural year with adverse consequences for their milpas' productivity. Data on household food security, anthropometric indices (weight-for-height, height-for-age and weight-for-age) and acute illness frequency were compared for children aged 5-12 years in female vs. male-headed households. Results show complex associations between migration-related male absence, food production and children's nutritional and health status. Higher purchasing power and relatively higher standards of living in households receiving male-earned remittances do not always compensate for the negative effects of male absence on food security in this community. Findings are discussed within a biosocial framework.

Shining Evolutionary Light on Human Sleep: Sleep Intensity and Human Cognition

CHARLES L. NUNN^{1,2} and DAVID R. SAMSON¹. ¹Evolutionary Anthropology, Duke University, ²Duke Global Health Institute, Duke University.

Scientists have made substantial progress in understanding the evolution of sleep across the Tree of Life, including in primates. Remarkably, our understanding of human sleep is less complete, which is surprising given our unique mental capacity and the importance of sleep for human cognitive performance. We used new phylogeny-based methods to investigate the evolution of human sleep in comparative context, focusing on sleep duration and rapid eye movement (REM) sleep relative to other primates. Analyses revealed that humans are exceptionally short sleepers relative to other primates: human sleep duration is substantially below the 95% credible interval of predicted sleep duration, based on a Bayesian analysis that predicts sleep duration from phylogeny, body mass, activity period, endocranial volume, diet, interbirth interval, and group size (only 0.2% of the predicted distribution is less than the observed value for humans). Analyses of REM reveal that humans have a substantially higher proportion of REM sleep than expected (only 0.4% of the predicted distribution was greater than the observed human value). Combined with other findings that humans show more flexible sleep than other primates, we propose that human sleep is shorter, deeper, and more flexible than expected in a typical primate. Several factors likely served as selective pressures for more efficient and flexible sleep in humans, including increased predation in terrestrial environments and threats from intergroup conflict. Less sleep would enable longer active periods to acquire and transmit new skills and knowledge, while deeper sleep may play a critical role in consolidation of those skills.

Intestinal parasites of wild orangutans in Gunung Palung National Park, Borneo, Indonesia

CAITLIN A. O'CONNELL¹, CHERYL D. KNOTT¹ and IVONA FOITOVA². ¹Department of Anthropology, Boston University, ²Department of Botany and Zoology, Masaryk University.

Parasitology is increasingly employed by field primatologists to better understand the ecology and health of wild primate populations. This study examined the intestinal parasites of wild Bornean orangutans in Gunung Palung National Park. Gunung Palung is relatively pristine orangutan habitat, while many other orangutan sites consist of degraded secondary forest. As habitat disturbance and contact with humans are known to increase parasite infection